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Rules, Regulations, Orders

TITLE 10—ARMY: WAR DEPARTMENT

CHAPTER VI—ORGANIZED RESERVES

PART 62—RESERVE OFFICERS' TRAINING
CORPS¹

§ 62.46 Unserviceable and lost property, surveys, etc.

(e) All other losses or damages of Government property for which the institution is accountable will be replaced by the institution, or reimbursement will be made to the United States in the value of the property lost or damaged as shown in current price lists if indicated therein, otherwise at invoice prices, or the cost of repairs including charges for packing, handling, and transportation when necessary, and the account may be cleared by forwarding through corps area headquarters to the Chief of Finance, Washington, D. C., a check for the value of the property shortage or damage determined as above indicated, with an itemized list in duplicate of the article grouped by classes for which payment is made. The duplicate copy of the list will be retained at corps area headquarters and placed in the property auditor's file. If the institution is unwilling to acknowledge pecuniary liability to the extent hereinbefore described, the allowable credit on account of depreciation, if any, in the value of the property at the time of the loss or damage will be determined by a report of survey. (Sec. 47, 39 Stat. 192; sec. 34, 41 Stat. 777; 10 U.S.C. 389) [Par. 15, A.R. 145-20, July 1, 1938, as amended by C 1, Ser. 18, 1939]

§ 62.54 Issue of textbooks and reference books—(a) Reference library.

(3) If funds are available upon requisition submitted to The Adjutant General through the corps area commander, who will state the procurement authority applicable, one set of all training publications required.

commissioned officers of the arm or service concerned will be furnished for every ten students of that arm or service regularly enrolled at the institution. Other War Department documents and additional copies of those listed in (2) above will also be furnished for the reference library and for the use of the professor of military science and tactics. Except as provided in (c) below, textbooks will not be furnished to individual students from ROTC funds.

(c) Issue of Army Regulations to students entering final year of ROTC instruction. (1) One copy each of A.R. 140-5 and of the pertinent regulations included in A.R. 140-22 to A.R. 140-39, inclusive, is authorized for issue to each student who enters on his final year of ROTC instruction at class MC, CC, and MI institutions.

(2) At the beginning of each school year, the professor of military science and tactics will submit a requisition to The Adjutant General through the corps area commander, who will state the procurement authority applicable, for a sufficient number of Army Regulations to accomplish the distribution authorized in (1) above.

(3) Army Regulations furnished as authorized in (1) above may be retained by the student upon completion of his ROTC instruction at the institution. (Sec. 47, 39 Stat. 192; sec. 34, 41 Stat. 777; 10 U.S.C. 389) [Par. 36, A.R. 145-20, July 1, 1938, as amended by C 1, Sept. 18, 1939]

[SEAL.]

E. S. ADAMS

*Major General,
Adjutant General.*

[F. R. Doc. 39-3967; Filed, October 27, 1939;
10:08 a.m.]

TITLE 16—COMMERCIAL PRACTICES

FEDERAL TRADE COMMISSION

[Docket No. 2150]

IN THE MATTER OF MORTON SALT COMPANY

§ 3.6 (m10) Advertising falsely or misleadingly—Manufacture: § 3.6 (n) (2)

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¹ These regulations supersede Part 62, Chapter VI, Title 1, of the Code of Federal Regulations.



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labeling—Qualities or properties: § 3.96 (a) (3m) Using misleading name—Goods—Manufacture: § 3.96 (a) (4) Using misleading name—Goods—Nature: § 3.96 (a) (6) Using misleading name—Goods—Qualities or properties. Using, in connection with offer, etc., in commerce, of salt for curing, preserving, smoking or flavoring meats, the word "smoked", or the word "smoke", or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered or sold as aforesaid, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking, or flavoring meats, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Morton Salt Company, Docket 2150, October 17, 1939]

United States of America—Before Federal Trade Commission

At a regular session of the Federal Trade Commission held at its office in the City of Washington, D. C., on the 17th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

ORDER TO CEASE AND DESIST

This proceeding having been heard upon the complaint issued and served upon respondent, Morton Salt Company, and its answer thereto, testimony, evidence, briefs and arguments of counsel for the Commission and counsel for respondent, and the Federal Trade Commission having made its report in writing stating its findings as to the facts and its conclusion drawn therefrom that the respondent has been and is violating the provisions of an Act of Congress approved September 26, 1914, entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," and the Commission having, on April 30, 1935 entered and issued its order requiring the respondent, Morton Salt Company, its officers, agents, employees and representatives, in connection with offering for sale or selling salt in interstate commerce or in the District of Columbia, to cease and desist, on brands or labels, and in magazines, trade journals, newspapers or other periodicals, or in house organs, pamphlets, radio broadcasting, or in any other form of advertisement, directly or indirectly, expressing or impliedly, from using the word "smoked" or the word "smoke," or any other word or words signifying

smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking, or flavoring meats, and further ordering said respondent to file within 60 days from the service of said order a report in writing setting forth the manner and form of its compliance therewith; and by order duly entered herein on June 28, 1935 having extended the time for filing report of compliance with said order from July 31, 1935 to August 30, 1935; and by order duly entered herein on June 17, 1936 having stayed said proceeding until final decision by the Commission in the matters of Smoke Products Company, et al, Docket 2783, and Pennsylvania Salt Manufacturing Company et al, Docket 2784; and by order duly entered herein on April 21, 1938 having directed that this matter remain *in fieri* without prejudice to the right of the Commission forthwith to enter such final order as seems just at or after the Commission's final decision in the matters of Dockets 2783 and 2784, and the Commission having made its final decision in the matters of Dockets 2783 and 2784, and having duly entered and issued its findings as to the facts and conclusions and orders to cease and desist in these matters, and having duly considered the record herein;

It is ordered. That respondent, Morton Salt Company, its officers, agents, employees and representatives, in connection with offering for sale, sale or distribution of salt in commerce, as commerce is defined in the Federal Trade Commission Act, do forthwith cease and desist from using the word "smoked" or the word "smoke," or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking, or flavoring meats.

It is further ordered. That the respondent shall, within sixty days after service upon it of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which it has complied with this order.

By the Commission.

[SEAL]

OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3975; Filed, October 27, 1939;
12:27 p. m.]

[Docket No. 2151]

IN THE MATTER OF JEFFERSON ISLAND SALT COMPANY

§ 3.66 (c20) Misbranding or mislabeling—Manufacture: § 3.66 (d) **Misbranding or mislabeling—Nature:** § 3.66 (h) **Misbranding or mislabeling—Qualities or properties:** § 3.96 (a) (3m) **Using misleading name—Goods—Manufacture:** § 3.96 (a) (4) **Using misleading name—Goods—Nature:** § 3.96 (a) (6) **Using misleading name—Goods—Qualities or properties.** Using, in connection with offer, etc., in commerce, of salt for curing, preserving, smoking or flavoring meats, the word "smoked", or the word "smoke", or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking, or flavoring meats, and further ordering said respondent to file within sixty days from the service of said order a report in writing setting forth the manner and form of its compliance therewith, and having by order duly entered herein on July 27, 1935 extended the time for filing report of compliance with said order from sixty days after the service thereof to September 15, 1935; and by order duly entered herein on March 5, 1937 having stayed said proceeding until final decision by the Commission in the matters of Smoke Products Company, et al, Docket 2783, and Pennsylvania Salt Manufacturing Company, et al, Docket 2784; and by order duly entered herein on May 20, 1938 having directed that this matter remain *in fieri* without prejudice to the right of the Commission forthwith to enter such final order as seems just at or after the Commission's final decision in the matters of Dockets 2783 and 2784, and the Commission having made its final decision in the matters of Dockets 2783 and 2784, and having duly entered and issued its findings as to the facts and conclusions and orders to cease and desist in these matters, and having duly considered the record herein;

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 17th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

ORDER TO CEASE AND DESIST

This proceeding having been heard upon the complaint issued and served upon respondent, Jefferson Island Salt Company, and its answer thereto, testimony, evidence, briefs and arguments of counsel for the Commission and counsel for respondent, and the Federal Trade Commission having made its report in writing stating its findings as to the facts and its conclusion drawn therefrom that the said respondent has been and is violating the provisions of an Act of Congress approved September 26, 1914, entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," and the Commission having, on April 30, 1935, entered and issued its order requiring the respondent, Jefferson Island Salt Company, its officers, agents, employees and representatives, in connection with offering for sale or selling salt in interstate commerce or in the District of Columbia to cease and desist on brands, or labels, and in magazines, trade journals, newspapers or other pe-

riodicals, or in house organs, pamphlets, radio broadcasting, or in any other form of advertisement, directly or indirectly, expressly or impliedly, from using the word "smoked" or the word "smoke," or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking, or flavoring meats, and further ordering said respondent to file within sixty days from the service of said order a report in writing setting forth the manner and form of its compliance therewith, and having by order duly entered herein on July 27, 1935 extended the time for filing report of compliance with said order from sixty days after the service thereof to September 15, 1935; and by order duly entered herein on March 5, 1937 having stayed said proceeding until final decision by the Commission in the matters of Smoke Products Company, et al, Docket 2783, and Pennsylvania Salt Manufacturing Company, et al, Docket 2784; and by order duly entered herein on May 20, 1938 having directed that this matter remain *in fieri* without prejudice to the right of the Commission forthwith to enter such final order as seems just at or after the Commission's final decision in the matters of Dockets 2783 and 2784, and the Commission having made its final decision in the matters of Dockets 2783 and 2784, and having duly entered and issued its findings as to the facts and conclusions and orders to cease and desist in these matters, and having duly considered the record herein;

It is ordered, That the respondent, Jefferson Island Salt Company, its officers, agents, employees and representatives, in connection with the offering for sale, sale or distribution of salt in commerce, as commerce is defined in the Federal Trade Commission Act, do forthwith cease and desist from using the word "smoked" or the word "smoke," or any other word or words signifying smoke, or implying the use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during its process of combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking or flavoring meats.

It is further ordered, That the respondent shall, within sixty days after service upon it of this order, file with the Commission a report in writing, set-

ting forth in detail the manner and form in which it has complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3976; Filed, October 27, 1939;
12:27 p. m.]

[Docket No. 2248]

IN THE MATTER OF AVERY SALT COMPANY

§ 3.66 (c20) Misbranding or mislabeling—Manufacture: § 3.66 (d) **Misbranding or mislabeling—Nature:** § 3.66 (h) **Misbranding or mislabeling—Qualities or properties:** § 3.96 (a) (3m) **Using misleading name—Goods—Manufacture:** § 3.96 (a) (4) **Using misleading name—Goods—Nature:** § 3.96 (a) (6) **Using misleading name—Goods—Qualities or properties.** Using, in connection with offer, etc., in commerce, of salt, the word "smoke", or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during the process and course of its combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking or flavoring meats, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Avery Salt Company, Docket 2248, October 17, 1939]

§ 3.66 (h) Misbranding or mislabeling—Qualities or properties: § 3.66 (j10) **Misbranding or mislabeling—Results.** Representing, in connection with offer, etc., in commerce, of salt, that respondent's product described or designated as "Avery Sugar Curing Smoke Salt" does the complete job of curing and smoking meat, or that meat by treatment with such product acquires therefrom the same taste or flavor or other properties or effects, as meat acquires from treatment with salt and subsequent exposure to the smoke of burning wood during the process and course of its combustion, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Avery Salt Company, Docket 2248, October 17, 1939]

United States of America—Before Federal Trade Commission

At a regular session of the Federal Trade Commission held at its office in the City of Washington, D. C., on the 17th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

ORDER TO CEASE AND DESIST

This proceeding having been heard by the Federal Trade Commission upon the complaint of the Commission, the answer of the respondent, testimony and other evidence in support of the allegations of the complaint and in opposition thereto, briefs filed herein and oral argument by counsel for the Commission and counsel for the respondent, and the Commission having made its report stating its findings as to the facts and its conclusion that said respondent has been and is violating the provisions of an Act of Congress approved September 26, 1914, entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," and the Commission having, on November 28, 1936, duly entered and issued its order requiring the respondent, Avery Salt Company, its officers, representatives, agents and employees in connection with the offering for sale, sale and distribution of salt in interstate commerce or in the District of Columbia, to cease and desist from certain practices, and further ordering said respondent to file within sixty days after the service of said order a report in writing setting forth in detail the manner and form of its compliance therewith; and by order duly entered herein on March 5, 1937, having extended the time for filing respondent's report as to the manner and form of its compliance with said order until such time as the Commission has rendered its final decision in the matters of Smoke Products Company, et al., Docket 2783, and Pennsylvania Salt Manufacturing Company, et al., Docket 2784; and by order duly entered herein on May 20, 1938, having directed that this matter remain *in fieri* without prejudice to the right of the Commission forthwith to enter such final order as seems just at or after the Commission's final decision in Dockets 2783 and 2784, and the Commission having made its final decision in the matters of Dockets 2783 and 2784, and having duly entered and issued its findings as to the facts and conclusions and orders to cease and desist in these matters, and having duly considered the record herein;

It is ordered, That the respondent, Avery Salt Company, its officers, representatives, agents and employees in connection with the offering for sale, sale and distribution of salt in interstate commerce, as commerce is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

(1) Using the word "smoke," or any other word or words signifying smoke, or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking, or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during the process and course of its combustion sufficiently to acquire from such source

alone all of its smoke or smoke effects for use in curing, preserving, smoking or flavoring meats.

(2) Representing that its product described or designated as "Avery Sugar Curing Smoke Salt" does the complete job of curing and smoking meat, or that meat by treatment with such product acquires therefrom the same taste or flavor or other properties or effects as meat acquires from treatment with salt and subsequent exposure to the smoke from burning wood during the process and course of its combustion, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Carey Salt Company, Docket 2516, October 17, 1939]

better than the old smoke house or as good, or that meat by treatment with such product acquires therefrom the same taste or flavor or other properties or effects as meat acquires from treatment with salt and subsequent exposure to the smoke from burning wood during the process and course of its combustion, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Carey Salt Company, Docket 2516, October 17, 1939]

United States of America—Before
Federal Trade Commission

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C. on the 17th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

ORDER TO CEASE AND DESIST

[F. R. Doc. 39-3977; Filed, October 27, 1939;

12:28 p. m.]

[Docket No. 2516]

IN THE MATTER OF CAREY SALT COMPANY

§ 3.6 (m10) Advertising falsely or misleadingly—Manufacture: § 3.6 (n)
(2) Advertising falsely or misleadingly—Nature—Product: § 3.6 (t) Advertising falsely or misleadingly—Qualities or properties of product: § 3.66 (c20) Misbranding or mislabeling—Manufacture: § 3.66 (d) Misbranding or mislabeling—Nature: § 3.66 (h) Misbranding or mislabeling—Qualities or properties: § 3.96 (a) (3m) Using misleading name—Goods—Manufacture: § 3.96 (a)
(4) Using misleading name—Goods—Nature: § 3.96 (a) (6) Using misleading name—Goods—Qualities or properties. Using, in connection with offer, etc., in commerce, of salt, the word "smoke", or any other word or words signifying smoke or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during the process and course of its combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking or flavoring meats, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Carey Salt Company, Docket 2516, October 17, 1939]

§ 3.6 (t) Advertising falsely or misleadingly—Qualities or properties of product: § 3.6 (x) Advertising falsely or misleadingly—Results. Representing, in connection with offer, etc., in commerce, of salt, that respondent's so-called smoke salt cures and smoke-flavors meat in one operation or that it cures and smokes meat at all, or that treatment of meat with its said product is a thousand times

better than the old smoke house or as good, or that meat by treatment with such product acquires therefrom the same taste or flavor or other properties or effects as meat acquires from treatment with salt and subsequent exposure to the smoke from burning wood during the process and course of its combustion, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Carey Salt Company, Docket 2516, October 17, 1939]

duly entered and issued its findings as to the facts and conclusions and orders to cease and desist in these matters, and having duly considered the record herein;

It is ordered. That the respondent, Carey Salt Company, its officers, representatives, agents and employees, in connection with the offering for sale, sale and distribution of salt in interstate commerce, as commerce is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

(1) Using the word "smoke," or any other word or words signifying smoke or implying use of smoke, to designate or describe salt offered for sale, or sold, for curing, preserving, smoking or flavoring meats, unless the salt so described or designated has been or is directly subjected to the action and effect of the smoke from burning wood during the process and course of its combustion sufficiently to acquire from such source alone all of its smoke or smoke effects for use in curing, preserving, smoking or flavoring meats.

(2) Representing that its so-called smoke salt cures and smoke-flavors meat in one operation or that it cures and smokes meat at all or that treatment of meat with its said product is a thousand times better than the old smoke house or as good or that meat by treatment with such product acquires therefrom the same taste or flavor or other properties or effects, as meat acquires from treatment with salt and subsequent exposure to the smoke from burning wood during the process and course of its combustion.

It is further ordered. That the respondent shall, within sixty days after service upon it of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which it has complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3978; Filed, October 27, 1939;
12:28 p. m.]

[Docket No. 2783]

IN THE MATTER OF SMOKED PRODUCTS
COMPANY ET AL.

§ 3.6 (t) Advertising falsely or misleadingly—Qualities or properties of product: § 3.6 (x) Advertising falsely or misleadingly—Results. Representing, in connection with offer, etc., in interstate commerce, of respondents' salt products, that meat cured or treated with "smoked salt" will be or is thereby subjected to smoke, or that "smoked salt" accomplishes, does, or can do all or everything that an old smokehouse does in the curing or smoking of meat, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order,

Smoked Products Company et al., Docket 2783, October 18, 1939]

*United States of America—Before
Federal Trade Commission*

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 18th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

IN THE MATTER OF SMOKED PRODUCTS COMPANY, A CORPORATION, AND THE SMOKED SALT COMPANY, INC.

ORDER TO CEASE AND DESIST

This proceeding having been heard¹ by the Federal Trade Commission upon the complaint of the Commission, as amended by stipulation, the substitute answer of respondents and upon respondents' motion that the case be disposed of on the pleadings, and the Commission having made its findings as to the facts and conclusion that said respondents have violated the provisions of the Federal Trade Commission Act;

It is ordered. That the respondents, Smoked Products Company, a corporation, and The Smoked Salt Company, Inc., their officers, representatives, agents and employees, directly or through any corporate or other device in connection with the offering for sale, sale and distribution of their salt products in interstate commerce, do forthwith cease and desist from:

(1) Representing that meat cured or treated with "smoked salt" will be or is thereby subjected to smoke, or

(2) Representing that "smoked salt" accomplishes, does, or can do all or everything that an old smokehouse does in the curing or smoking of meat.

It is further ordered. That respondents shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which it has complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3979; Filed, October 27, 1939;
12:29 p. m.]

[Docket No. 2784]

IN THE MATTER OF PENNSYLVANIA SALT
MANUFACTURING COMPANY

§ 3.6 (t) Advertising falsely or misleadingly—Qualities or properties of product: § 3.6 (x) Advertising falsely or misleadingly—Results. Representing, in connection with offer, etc., in interstate commerce, of respondent's salt products, that meat cured or treated with "smoked

salt" will be or is thereby subjected to smoke, or that "smoked salt" accomplishes, does, or can do all or everything that an old smokehouse does in the curing or smoking of meat, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Pennsylvania Salt Manufacturing Company, Docket 2784, October 18, 1939]

*United States of America—Before
Federal Trade Commission*

At a regular session of the Federal Trade Commission held at its office in the City of Washington, D. C., on the 18th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

ORDER TO CEASE AND DESIST

This proceeding having been heard¹ by the Federal Trade Commission upon the complaint of the Commission as amended by stipulation, the substitute answer of respondent and upon respondent's motion that the case be disposed of on the pleadings, and the Commission having made its findings as to the facts and conclusion that said respondent has violated the provisions of the Federal Trade Commission Act;

It is ordered. That the respondent Pennsylvania Salt Manufacturing Company, a corporation, its officers, representatives, agents and employees, directly or through any corporate or other device in connection with the offering for sale, sale and distribution of its salt products in interstate commerce, do forthwith cease and desist from:

(1) Representing that meat cured or treated with "smoked salt" will be or is thereby subjected to smoke, or

(2) Representing that "smoked salt" accomplishes, does, or can do all or everything that an old smokehouse does in the curing or smoking of meat.

It is further ordered. That respondent shall, within sixty (60) days after service upon it of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which it has complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3980; Filed, October 27, 1939;
12:29 p. m.]

[Docket No. 3846]

IN THE MATTER OF INLAND SALES
CORPORATION

§ 3.99 (b) Using or selling lottery devices—in merchandising. Supplying, etc., in connection with offer, etc., in commerce, of sports jackets, pens, pen-

cils or any other articles of merchandise, others with push or pull cards, punch boards, or other lottery devices, so as to enable such persons to dispose of or sell any merchandise by the use thereof, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Inland Sales Corporation, Docket 3846, October 18, 1939]

§ 3.99 (b) *Using or selling lottery devices—In merchandising.* Mailing, etc., in connection with offer, etc., in commerce, of sports jackets, pens, pencils, or any other articles of merchandise, to respondents' agents or to distributors or to members of the public, push or pull cards, punch boards, or other lottery devices so prepared or printed as to enable said persons to sell or distribute any merchandise by the use thereof, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Inland Sales Corporation, Docket 3846, October 18, 1939]

§ 3.99 (b) *Using or selling lottery devices—In merchandising.* Selling, etc., in connection with offer, etc., in commerce, of sports jackets, pens, pencils, or any other articles of merchandise, any merchandise by the use of push or pull cards, punch boards, or other lottery devices, prohibited. (Sec. 5, 38 Stat. 719, as amended by Sec. 3, 52 Stat. 112; 15 U.S.C., Supp. IV, sec. 45b) [Cease and desist order, Inland Sales Corporation, Docket 3846, October 18, 1939]

*United States of America—Before
Federal Trade Commission*

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 18th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

IN THE MATTER OF A. LASKEY, J. SAMUELS,
AND J. P. SHEEHAN, INDIVIDUALLY, AND
TRADING AS INLAND SALES CORPORATION

ORDER TO CEASE AND DESIST

This proceeding having been heard by the Federal Trade Commission upon the complaint of the Commission and the answer of respondents, in which answer respondents admit all the material allegations of fact set forth in said complaint, and state that they waive all intervening procedure and further hearing as to said facts, and the Commission having made its findings as to the facts and conclusion that said respondents have violated the provisions of the Federal Trade Commission Act;

It is ordered, That the respondents, A. Laskey, also known as A. Lasky, J. Samuels and J. P. Sheehan, individuals and copartners trading as Inland Sales Corporation, or trading under any other name or names, their representatives,

agents and employees, directly or through any corporate or other device, in connection with the offering for sale, sale and distribution of sports jackets, pens, pencils, or any other articles of merchandise in commerce, as commerce is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

(1) Supplying to or placing in the hands of others push or pull cards, punch boards, or other lottery devices, so as to enable such persons to dispose of or sell any merchandise by the use thereof;

(2) Mailing, shipping or transporting to their agents or to distributors or to members of the public push or pull cards, punch boards, or other lottery devices so prepared or printed as to enable said persons to sell or distribute any merchandise by the use thereof;

(3) Selling or otherwise disposing of any merchandise by the use of push or pull cards, punch boards, or other lottery devices.

It is further ordered. That within sixty (60) days from the date of the service of this order upon the said respondents, they shall file with the Commission a report in writing, setting forth in detail the manner and form in which they have complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3981; Filed, October 27, 1939;
12:30 p. m.]

TITLE 19—CUSTOMS DUTIES

BUREAU OF CUSTOMS

[T. D. 49998]

COUNTERVAILING DUTIES ON IMPORTATIONS
FROM GERMANY

T.D. 49958 AMENDED AND EXTENDED TO AUTHORIZE COLLECTORS OF CUSTOMS TO DISREGARD THE PROVISIONS OF T.D. 49821 WITH RESPECT TO DEPOSITS OF ESTIMATED COUNTERVAILING DUTIES AND SUSPENSION OF LIQUIDATION OF ENTRIES PENDING REPORT OF THE PERTINENT FACTS TO THE BUREAU WHERE THE IMPORTED MERCHANDISE IS SHIPPED TO THE IMPORTER GRATIS

OCTOBER 24, 1939.

To Collectors of Customs and Others Concerned:

T.D. 49958,¹ dated September 11, 1939, prescribing the kind and form of evidence upon which collectors of customs may, pursuant to the provisions of T.D. 49849,² disregard the requirements of T.D. 49821³ in certain respects, is hereby amended by adding after the last paragraph thereof the following:

The Bureau is satisfied that in the case of merchandise of German origin which

is supplied to the importer by the exporter without charge the assessment of countervailing duties is not warranted, and you are therefore authorized to accept entries of dutiable German merchandise without requiring the deposit of estimated countervailing duties and to liquidate such entries without assessing countervailing duties where you are satisfied from the invoice or other evidence filed with the entry that the transaction involves no monetary or other compensation to the German supplier.

[SEAL]

BASIL HARRIS,
Commissioner of Customs.

[F. R. Doc. 39-3971; Filed, October 27, 1939;
10:53 a. m.]

TITLE 23—HIGHWAYS

PUBLIC ROADS ADMINISTRATION

AMENDMENT NO. 3 TO THE RULES AND REGULATIONS FOR CARRYING OUT THE FEDERAL HIGHWAY ACT (EXCEPT THE PROVISION THEREOF RELATIVE TO FOREST ROADS) APPROVED BY THE ACTING SECRETARY OF AGRICULTURE, FEBRUARY 27, 1935

Pursuant to authority conferred by section 18 of the Federal Highway Act of November 9, 1921 (42 Stat. 212), and amendatory and supplementary acts, including the President's "First Plan on Government Reorganization and Accompanying Orders," dated April 25, 1939, and in order to give effect to section 2 of the amendatory act of July 19, 1939 (Public No. 195, 76th Congress), Regulation 11 of the Rules and Regulations approved February 27, 1935, for carrying out the provisions of said Federal Highway Act, except the provisions thereof relative to forest roads, is hereby amended to read as follows:

REGULATION 11.—HIGHWAY-PLANNING PROJECTS

"SEC. 1. The Commissioner of Public Roads, within the limits fixed by law, may prescribe the amount of the apportionment to any State which shall be programmed and expended for surveys, plans, engineering and economic investigations for future construction. Such planning projects shall include the highway planning surveys and shall be programmed and initiated in the same manner as other projects by the submission of project statements, and the work shall be prosecuted under a project agreement. Highway planning projects involving detailed surveys and construction plans shall be confined to projects for which State funds are not immediately available for construction, and for which Federal funds for construction would be from subsequent apportionments to a State. No part of the cost of highway planning projects shall be paid to States which restrict the employment of engineers to residents of the State."

¹ 4 F.R. 3891 DI.

² 4 F.R. 1693 DI.

³ 4 F.R. 1301 DI.

Done at the City of Washington this 24th day of October 1939, as witness my hand and the seal of the Federal Works Agency.

[SEAL] JOHN M. CARMODY,
Federal Works Administrator.

[F. R. Doc. 39-3964; Filed, October 26, 1939;
3:53 p. m.]

TITLE 24—HOUSING CREDIT UNITED STATES HOUSING AUTHORITY

PART 608—PROGRESSIVE STEPS IN THE INITIATION OF A LOW-RENT HOUSING PROJECT*†

Sec.

- 608.0 Scope and content.
- 608.1 Co-operation with the United States Housing Authority.
- 608.2 Steps leading to a tentative earmarking of funds.
- 608.3 Steps leading to an application for financial assistance for a specific project.
- 608.4 Making of a loan contract and a contract for annual contributions for a specific project.

§ 608.0 Scope and content. This Part is intended to describe in a general way the steps which are necessary in the development of a low-rent housing project through the execution of a loan contract and a contract for annual contributions or capital grant. Where necessary to meet the requirements of the Act and the policies of the USHA, additional material may be requested of the local authority. Under four Sections the Part deals with: co-operation with the USHA; steps leading to a tentative earmarking of funds; steps leading to an application for financial assistance for a specific project; and making of a loan contract and a contract for annual contributions for a specific project.*† [Introduction]

§ 608.1 Co-operation with the United States Housing Authority. Throughout the formulation of a local program there should be the closest possible co-operation between the local authority and the United States Housing Authority. The USHA is anxious to extend any necessary assistance, especially in the early stages, to assure that the local authority will proceed with a maximum of economy and a minimum of effort, and to protect the local authority against spending money in the formulation of a project which cannot be approved by the USHA. Care in the early stages of the project will in the long run make for the greatest speed, efficiency, and economy. The USHA will make available advisers to consult with local authorities on the spot as to the legal, economic, financial, planning, and architectural phases of their proposed programs. Through such consultation and advice, a project ought to be in shape for speedy

consideration and approval when submitted to the USHA through a formal application. It is the policy of the USHA to deal directly with local housing authorities. Persons or organizations, who for a fee offer to promote projects or act as negotiators with the USHA, are unnecessary and are not recognized by the USHA. No middlemen are required or desired.*† [Par. I]

§ 608.2 Steps leading to a tentative earmarking of funds. (a) State legislation, where it does not already exist, should be adopted, authorizing the creation of local housing authorities with power to develop, administer, and finance low-rent housing projects, and enabling the State, city, county, or other political subdivision, in which a project is situated to make the required annual contributions (such as tax remissions or tax exemptions) and to provide other forms of co-operation. Upon request of local officials, the Legal Division of the USHA will aid in drafting new legislation or necessary amendments to existing legislation.

(b) Organization of a local housing authority and the appointment of its members should be accomplished in accordance with state law. Two certified transcripts of the organization proceedings should be supplied promptly to the USHA as a matter of record. Upon the request of local officials, the Legal Division of the USHA will supply a complete set of appropriate forms and proceedings for the organization of a local housing authority, including by-laws.

(c) Adequate preliminary funds must be available to the local authority for reasonable administrative and technical assistance in connection with its preliminary work.

(d) A tentative general program for low-rent housing in relation to the needs of the locality should be considered. This general program should not go so far as the formulation of specific projects, but should be based on:

(1) Available evidence as to the extent of slums and of indecent, unsafe and insanitary dwelling conditions in the locality; a general consideration of the need for low-rent housing; and a rough estimate of the rentals which low-income families can afford. Surveys or other such data are unnecessary at this stage.

(2) A preliminary consideration of alternate types of projects (on vacant sites or on slum sites; single houses, row houses, or multi-family structures; etc.)

(3) Estimate of amount of the USHA loan which, if available, could be effectively utilized during the succeeding two years.

(e) The three principal statutory requirements of the United States Housing Act should be considered, and the possibilities canvassed for:

(1) Raising the necessary 10 percent of the development cost of housing proj-

ects either through loans or capital donations.

(2) Obtaining necessary local annual contributions, such as tax remissions or tax exemptions.

(3) Providing for the required elimination of unsafe or insanitary dwellings substantially equal in number to the number of new dwellings proposed. (It is unnecessary to make specific arrangements or obtain commitments on these matters prior to an earmarking. In fact no such arrangements or commitments should be made or obtained at this stage regarding the 10 percent local financing).

(f) Request for earmarking of funds for its general program may be made by the local authority to the USHA when the above listed steps have been taken. In connection with such request, it will generally be helpful for one or more members of the authority, accompanied if possible by its general manager and technical adviser, to come to Washington for consultation. Direct contact with the Legal and Project Planning Divisions of the USHA will aid in clearing up difficulties and assuring rapid progress on the local program. As much data as is readily available on items (a) through (e) should be brought to Washington, but no formal presentation need be prepared in advance. Before securing an earmarking (and even after an earmarking until definite approval of a site by the USHA), the local housing authority should avoid definite commitments as to particular sites. Before such time, it will also be unnecessary for it to choose architects or engineers or to prepare any plans or specifications.

(g) Earmarking of funds by the USHA will be considered promptly when the above listed steps have been taken. Earmarkings do not in any case imply the approval of any specific project, but rather indicate the belief of the USHA that the local authority can proceed rapidly toward the formulation of satisfactory projects complying with the Act. Before a loan contract and a contract for annual contributions or capital grant relating to a low-rent housing project can be entered into by the USHA, the steps outlined under Sections 608.3 and 608.4 must be taken.*† [Par. II]

§ 608.3 Steps leading to an application for financial assistance for a specific project. As soon as an earmarking is made, the local authority should proceed with the formulation of a specific project. It is desirable that each specific project be considered as part of a comprehensive long-range program for elimination of the slums of the city and the rehousing of slum dwellers. The USHA is ready, from the start, to consult with the local housing authority on comprehensive plans for the future of its community. Adequate administrative and technical staff should be employed. The development and administration of even a moderate sized low-rent housing project is an important business and social venture,

*Sections 608.0 to 608.4 issued under the authority contained in Sec. 8, 50 Stat. 891: 42 U.S.C., Sup. IV, 1408.

†The source of Sections 608.0 to 608.4 is Bulletin 5, revised June 20, 1938.

demanding sound judgment and technical ability. In most cases, a general manager with necessary assistants, and a technical adviser (who may be on a consultant basis) will prove necessary. The eight principal steps in the formulation of a specific project are enumerated and outlined below.

(a) *Determination of need.* As the first step in the formulation of a specific project, reliable data must be obtained as to the extent of slums and as to indecent, unsafe and insanitary housing conditions in the locality. On the basis of such information, the local authority should determine the actual need for the low-rent housing project, the income group to be served by it, and the rents which such group can afford to pay. The date for such determination may be available in the form of real property surveys or special surveys of slum areas. New sample surveys may in some cases be necessary.

(b) *Site selection.* Available sites should be carefully examined, bearing in mind their relative advantages in respect to their relation to a general city plan, to the first cost of land, cost of land improvements, types of buildings suitable to the various sites, and the resulting livability and cost to the occupants. The advice of city planning and zoning agencies will often be very valuable. In selecting sites, consideration should also be given to the ease and speed of acquisition of the site in order to permit the earliest possible commencement of construction work. The local authority should submit the proposed site for advice by the USHA as early as possible. In some cases it will be wise to select tentatively two or more alternate sites and submit them to the USHA for advice. In all cases before the submission of an application, a suitable site must be selected, its boundaries determined, maps and photographs prepared, and an estimate made of its probable cost. This estimate of cost need not involve formal appraisal of the various parcels comprising the site. In addition to the above necessary steps, the local authority may, if it so desires, submit its site to the USHA for tentative approval before submitting its application. If the USHA then gives its consent, the local authority may proceed to the preparation of a survey, appraisals of the various individual parcels, the collection of title information, and the negotiation of options. In no event should appraisals be made without prior approval by the USHA of the appraisers to be selected, the cost of appraisals and the appraisal methods proposed; nor should options be taken until the USHA has approved the appraisals.

(c) *Suggested site plan and proposed number of dwelling units.* In order to ascertain the proposed development cost of the entire project, it will be necessary to determine the proposed number of dwelling units. This will involve the preparation of a site plan indicating an

economical development of the site. The USHA will supply advisers or consultants to aid in such work. In the preparation of final plans and specifications, the suggested site plan may be modified as deemed desirable. The Local Authority should determine the number of dwelling units which can with advantage be placed on the site. It should also prepare a suggested schedule of dwelling units showing the approximate number of units of each type (such as 2-story row houses, etc.) and the number of units of various sizes (3 rooms, 4 rooms, etc.). In connection with the preparation of a suggested site plan, the local authority may wish to retain an architect or engineer on a consulting basis, but it is not necessary at this stage to contract for the final preparation of plans and specifications. The local authority may, however, if it so wishes, undertake at this stage an examination of the qualifications of various architects proposed for permanent employment, and make its final selection. However, the USHA cannot make loans to finance local authorities for expenditures of any nature unless such expenditures are applicable to projects for which loan contracts are made. Thus, contracts for architectural or engineering services should not be entered into until after the execution of a loan agreement with the USHA, except that local authorities may, in their own discretion, make such contracts contingent upon the execution of a loan contract and subject to such conditions as may be mutually satisfactory to the local authority and the architect in the event that the loan contract in question is not executed. The forms of contracts and fees to be paid should in all cases be approved by the USHA, and it is advisable that contingent agreements be based upon the conditions in the USHA's suggested form of architect's contract.

(d) *Determination of proposed development cost of the entire project.* Since definite plans and specifications will not be prepared until after a loan contract is made, the local authority will not be required to make a detailed estimate of the development cost of the project at this stage. Instead there will be used for application and contract a "Proposed Development Cost" based on the proposed number of dwelling units. An allowance of 5 per cent for changes and extras during development should be included in the Proposed Development Cost.

(e) *Amounts requested for loan and annual contributions.* The local authority should determine the amount of loan to be requested from the USHA. When annual contributions are made, the total loan by the USHA cannot exceed 90 per cent of the actual total development cost of the project. The amount of loan for which the local authority requests a contract should not exceed 90 per cent of the proposed development cost of the entire project. The contract when written will provide

that the amount of loan contracted for may, at the option of the USHA, be increased subsequently by a margin of safety of 1/10. The addition of the 10 per cent margin of safety in the preparation of contracts between the local authority and the USHA does not in any way imply that the project cost should exceed the proposed development cost. On the contrary, in developing the project the local authority will be required to achieve the maximum economy consistent with the purposes of the Act and to exert every effort to keep within the proposed development cost. The local authority should also determine the amount of the annual contributions to be requested from the USHA. This will be based upon the annual contribution (in addition to the local annual contribution) needed to make up the difference between the annual costs of the project and the rentals which the low-income families can pay. In no event can the annual contributions by the USHA exceed 3 1/4 per cent¹ annually of the actual total development cost of the project. The amount of annual contributions requested should not exceed 3 1/4 per cent annually of the proposed development cost plus a margin of safety of 1/10.

(f) *Specific arrangements for meeting three principal statutory requirements.* Before submitting an application, the local authority should make specific arrangements for obtaining necessary local annual contributions, such as tax remissions or tax exemptions and providing for the required elimination of unsafe or unsanitary dwellings substantially equal in number to the number of new dwellings proposed. Whenever possible, before an application is submitted, definite provisions for meeting these statutory requirements shall have been completed through binding contracts between the local authority and public agencies. A resolution by a city council or other governing body will suffice if it imposes upon the city or other public agency a similar contractual obligation. Whenever it is impossible for the local authority to obtain such final contracts or resolutions prior to the submission of the application, the USHA, for the purpose of taking action on the application, will accept other reasonable assurances. However, in such cases, a provision will be inserted in the Loan Contract requiring that such contracts or resolutions be obtained as a condition precedent to the obligation of the USHA to advance any

¹ The United States Housing Act limits the rate of Federal annual contributions to 1 per cent in excess of the going Federal rate of interest at the time the annual contributions contract is made. The going rate of Federal interest is now 2 1/4 per cent thus fixing the annual rate of Federal annual contribution at a maximum of 3 1/4 per cent. This maximum is subject to change as the going rate of Federal interest may change. Prior to June 15, 1938, this rate was 2 1/2 per cent and annual contributions contracts entered into prior to that date are at the rate of 3 1/2 per cent.

funds under the Loan Contract. The third principal statutory requirement is that at least 10% of the development cost of the project be financed other than by loans from the USHA. Such local financing may be by capital donations or sale of bonds to private purchasers. Whenever possible, before an application is submitted, definite arrangements by contracts or resolutions should be made for such capital donations as are to be obtained. The USHA will not require, as a condition precedent to entering into loan and annual contributions contracts or to the advance of funds prior to the award of construction contracts, that any specific arrangements be made or commitments obtained for the sale of any bonds to purchasers other than the USHA. In fact it is advisable that the local authorities should not enter into any binding agreements in regard to the private sale of these bonds but that they should be sold at public sale with competitive bidding to ascertain their market value and obtain the best possible terms of sale. The USHA will merely require reasonable assurances that such bonds can be sold. These assurances may take the form of an offer or a letter from a prospective purchaser stating that it will make a bid for the bonds on certain proposed terms.

(g) Other arrangements for co-operation with local governments. Other possible forms of co-operation by which local governments might aid a low-rent housing project are: the zoning or rezoning of the site and of the area surrounding the site; vacation or replanning of streets and alleys, etc., as necessary for the proper planning of the project; the acceptance of the dedication of new streets and alleys, etc., together with the improving and maintaining of the same; the waiving of building and inspection fees; the making of exceptions from building regulations and ordinances as necessary in the development of the project; the maintaining of playgrounds, recreation centers, or other community facilities included within the project; the furnishing and maintaining of public facilities adjoining or in the neighborhood of the project, such as new street approaches, playgrounds, schools, community centers, clinics; the extending, enlarging, or changing of sewer or utility lines; the furnishing, without charge, or at special rates, of municipal services for which a charge is usually made in addition to ad valorem taxes, such as water, gas, electricity, or sewerage, garbage, trash and ash removal. When arrangements are made for some or all of the above forms of co-operation, contracts, or resolutions should, if possible, be obtained before an application is submitted. Whenever it is impossible for the local authorities to obtain such final contracts or resolutions prior to the submission of the application, the USHA, for the purpose of tak-

ing action on the application, will accept other reasonable assurances. However, in such cases, a provision will be inserted in the Loan Contract requiring that such contracts or resolutions be obtained as a condition precedent to the obligation of the USHA to purchase bonds of the local authority. In order that the contracts, resolutions, or other assurance in connection with the three principal statutory requirements mentioned in paragraph (f) above, as well as the arrangements for co-operation with local governments mentioned in this paragraph (g) may be in satisfactory form, it is recommended that a legal advisor of the USHA be consulted before they are entered into. Forms of contracts and proceedings for their authorization are available and will be furnished by the USHA upon request.

(h) Submission of the application. When the above action has been taken in the formulation of a specific project, the local authority should submit to the USHA an Application for Financial Assistance. This application shall correlate and present all of the material outlined under the above items (a) through (g). Application forms (including instructions for their preparation) are available from the USHA.*† [Par. III]

§ 608.4 *Making of a loan contract and a contract for annual contributions for a specific project.* When a completed application is submitted, it will be reviewed by the USHA. Contracts for financial assistance cannot be made unless it is established:

(a) That slums, or indecent, unsafe, and insanitary dwelling conditions exist in the locality; that there is a need for low-rent housing; and that the project will help to meet that need.

(b) That the legal requirements of the Act will be met (including equivalent elimination, assurances of 10% local participation, necessary local annual contributions, and local co-operation, etc.) and that proper disposition can be made of all legal questions affecting the development, financing, and administering of the project.

(c) That it is possible, under the conditions prevailing in the locality, to develop a feasible project within the cost limitations and other terms of the Act.

(d) That the project is feasible and desirable from the viewpoint of site selection, and that the site can be acquired at a reasonable price and at a price consistent with its proposed use for low-rent housing.

(e) "That the project will not be of elaborate or expensive design or materials, and economy will be promoted both in construction and administration." See Sec. 15 (5) (a) of the United States Housing Act of 1937.

If the USHA approves the application, it will proceed with the preparation of two separate contracts, namely, a loan contract to aid in financing the develop-

ment of the project, and a contract for annual contributions to assist in achieving and maintaining low rentals. The approval of an application and the making of contracts based thereon does not constitute final approval of all items included in the application. These two contracts, which are described separately below, will be executed at the same time.

(a) *Loan contract.* In the loan contract, the USHA will agree to loan funds to assist in financing the development of a low-rent housing project on the following terms:

(1) The amount to be loaned by the USHA will be a specified amount, equal to 90% (or such lesser per cent as may be agreed upon and stated in the contract) of the proposed development cost of the project. The contract will also provide that the USHA may at its option subsequently increase such amount by a margin of safety of $\frac{1}{10}$. Since the loan contract will be made prior to the final determination of the actual cost of the project, it will contain a provision for the reduction of the entire amount of the loan to the extent that such amount proves to exceed 90% (or such lesser per cent as may be agreed upon and stated in the contract) of the actual total development cost of the project as determined by the USHA.

(2) Upon the request of the local authority, the USHA will advance funds for the purchase of land, for the preparation of plans and specifications, and for other preliminary expenses at any time after the loan contract is executed and before compliance with the conditions applicable to purchases of definitive bonds. Such advance will be made upon receipt of Advance Loan Notes exchangeable for definitive bonds when issued.

(3) The obligations evidencing the loan made by USHA (with the possible exception of any advance pursuant to (2) above for which other security provisions may be made) must be negotiable, serial, coupon bonds, bearing interest at an agreed upon rate (not less than $3\frac{1}{4}\%$)¹ must be payable in full in a specified period of time not exceeding sixty (60) years, and will be secured by a trust indenture (without a power of foreclosure) with such provisions as may be provided in the loan contract.

(4) The USHA will be under no obligation to take up and pay for any bonds which it has contracted to purchase, or to make any advance pursuant to (2) above, until the local authority has demonstrated to the satisfaction of the USHA that:

(i) The local authority has a binding contractual obligation or a right under

¹ The United States Housing Act fixes this minimum rate at one half of one per cent in excess of the going Federal rate of interest, which going Federal rate is $2\frac{3}{4}\%$ at present.

law, to obtain the necessary local annual contributions and local co-operation from the State, city, county or other political subdivision.

(ii) The provisions for equivalent elimination, as required by Sec. 10 (a) of the United States Housing Act have been accomplished or contracted for.

(iii) The local authority has obtained reasonable assurances that it can obtain by capital donations or sale of its bonds to purchasers other than the USHA the amount necessary to cover that portion of the proposed development cost which the USHA has not contracted to furnish, plus a margin of safety of one-tenth.

(5) The USHA will be under no obligation to take up and pay for any bonds (except for any advance pursuant to (2) above) which it has contracted to purchase until the local authority has demonstrated to the satisfaction of the USHA that (in addition to meeting the conditions in (4) above):

(i) It has prepared final plans and specifications which are accepted by the USHA.

(ii) It can complete the development of the project in accordance with such plans and specifications for the amount which the USHA has agreed to lend, together with such amount as the local authority has arranged to obtain from other sources.

(iii) The cost of dwelling facilities per room and per dwelling unit will meet the specific limitations in Sec. 15 (5) of the Act, and that the construction cost of dwelling units will meet the limitations of Sec. 15 (5) (b) of the Act.

(iv) A bond transcript has been submitted showing that the bonds are binding and legal obligations.

(v) The local authority has obtained (or has a binding contractual obligation to obtain) the amount of funds necessary to cover that portion of the Proposed Development Cost which the USHA has not contracted to furnish, plus a margin of safety of one-tenth.

(vi) The local authority has observed all the provisions contained in the loan contract.

(6) After compliance with the contract conditions applicable to advances under (2) above or to bond purchases (as the case may be), a local authority may file requisitions for funds on account of the loan as they are needed for the development of the project, such requisitions to be accompanied by such documents and transcript papers as may be required by the contract. Each such payment of funds will be made by the USHA only after the filing and approval of a certificate of purposes of the expenditures which the local authority proposes to make.

(7) If all or a part of the local participation in the development cost is to be met by loans, at least 50% of such loan funds must be obtained by the local authority not later than the date on which the USHA has advanced 50% of

the specified amount of its loan. The balance of such local loan funds must be obtained by the local authority not later than the date on which the USHA has advanced 90% of the funds to be loaned by it.

(8) The loan contract will provide for the following construction terms and conditions: the requirement that construction work be done by lump sum contract, after competitive bidding; the submission to and approval by the USHA of proposed and final construction contract documents; the securing of performance bonds and compensation and liability insurance; the prohibition of child and convict labor, discrimination in employment, interference with collective bargaining, and so-called "kick-back" payments; the requirements of payments of prevailing wage rates and other conditions of employment, including hours of work; compliance with provisions in Sec. 6 (c) of the Act relating to American-made materials; and review during construction and submission of periodic reports.

(b) *Contract for annual contributions.* In the contract for annual contributions, the USHA will agree to make annual contributions to the local authority to assist in achieving and maintaining the low-rent character of the project on the following terms:

(1) The annual contribution will be a specified percentage (not exceeding 3 3/4%) annually of the actual total development cost of the project as determined by the USHA but not to exceed, in any event, a specified amount which amount will be the specified percentage (not exceeding 3 3/4%) of the proposed development cost plus a margin of safety of one-tenth.

(2) Such annual contributions will be payable in uniform amounts over a specified period, not in excess of sixty (60) years, from the date of the contract. Such annual contributions will commence on a date to be fixed in the contract which date shall be not earlier than one year from the date of the contract. In case any contract is made for a period exceeding twenty (20) years, the USHA will reserve the right under Sec. 10 (c) of the Act to re-examine the status of the project at the end of ten (10) years after the date of the contract, and every five (5) years thereafter, and to make any modifications required by the provisions of said Sec. 10 (c).

(3) Each annual contribution will be payable fifteen days in advance of the commencement of the yearly period to which such contribution is applicable. The local authority will be required to furnish a certificate and other assurances that during the twelve months' period preceding any such payment the local authority shall have retained ownership of the housing project, maintained its low-rent character, paid prevailing wages as required by Sec. 16 (2) of the Act, obtained the required local annual contributions to supplement the annual con-

tribution from the USHA, and observed the provisions of the annual contributions contract relating to equivalent elimination.

(4) All such annual contributions shall be pledged as security for any loans obtained by the local authority to assist the development of the project; *Provided*, That such annual contributions shall be used first to apply toward the payment of interest or principal as the same mature on any loan made by the USHA to the local authority (including any bonds or other evidences of such loan which may be resold by the USHA) to assist the development of the project to which the annual contributions relate.

(c) *Forms of contracts and proceedings.* In order to assist local authorities the USHA has available for local use suggested forms of contracts and proceedings relating to:

(1) Creation and organization of local housing authorities, including by-laws,

(2) Equivalent elimination,

(3) Local co-operation and local annual contributions in the form of tax exemption,

(4) Public sale of local authority bonds,

(5) Local capital donations,

(6) Surveys, title information, guarantee policies, title certificates, appraisals and options,

(7) Architect's services,

(8) Construction contracts, and related documents,

(9) Deposit of Loan Proceeds in Development Fund,

(10) Advance Loan Notes, and proceedings authorizing same,

(11) Housing Authority Bonds, Trust Indenture securing same and proceedings authorizing issuance thereof, and

(12) Other matters involved in the financing or development of projects.

(d) *Presidential approval.* Pursuant to Sec. 6 (d) of the U. S. Housing Act, no loan contract or contract for annual contributions or capital grant will be entered into by the USHA without the approval of the President.

(e) *Execution of contract.* Upon the completion of the steps outlined in this bulletin and upon the approval of the President, a loan contract and a contract for annual contributions or capital grant may be executed by the USHA and the local authority.*† [Par. IV]

NATHAN STRAUS,
Administrator.

OCTOBER 21, 1939.

[F. R. Doc. 39-3974; Filed, October 27, 1939;
11:37 a. m.]

PART 609—SELECTION AND QUALIFICATION OF ARCHITECTS *†

Sec.

609.0 Scope and content.

609.1 Methods of selection.

609.2 Selection of method.

609.3 Procedure of qualifying competition.

609.4 Miscellaneous considerations.

§ 609.0 Scope and content. This Part is intended to describe the methods of selecting architectural services after the execution of a loan agreement with the USHA. It is to be understood that local authorities may, in their own discretion, make contracts with architects contingent upon the execution of a loan contract and subject to such conditions as may be mutually satisfactory to the local authority and the architect in the event that the loan contract in question is not executed. In connection with the problem of engaging architectural services the Part discusses the following points: methods of selection, selection of method, procedure of qualifying competition and miscellaneous considerations.*† [Introduction]

§ 609.1 Methods of selection. In connection with the problem of engaging architectural services, local housing authorities are requested to give consideration to the following methods of selection:

(a) *By direct competition.* This method contemplates open competition on the basis of plans submitted for the actual architectural services involved in a particular project. The USHA takes no position for or against this method with respect to general work but it appears that it is not well adapted to the USHA program for the following reasons: in the early stages of project development the problem is not sufficiently clear to permit the drafting of an adequate program for the competition, hence serious delays would result from this process; extra costs are involved since it is necessary to employ architectural advisers for a well organized competition; there is the well known danger that the winner of a competition might be brilliant in general plan and design but inept with respect to practical considerations. It should be borne in mind that unusual executive and organizing ability are vital qualifications for this class of architectural service.

(b) *By direct employment of large groups.* This method has been frequently employed by local housing authorities. It has the merit of meeting pressure and of distributing work to a large number of architectural firms. However it does not involve the employment of a larger number of draftsmen but does, in effect, curtail the benefits to those architects in the group who will, inevitably, take the lead. The method has at least two distinct disadvantages; it involves the possibility of serious delays and it tends to check ingenuity of design and construction. Admittedly the latter point may be argued from the reverse point of view, that is, a large group may also be depended

upon not to produce plans which contain serious errors. However the danger of mediocrity should not be overlooked, nor should the local authority fail to realize that with a large group it is difficult if not impossible to center the responsibility.

(c) *By direct employment of a single firm or a very small group.* Under this method the natural and proper procedure would be to select a single firm, or at most two or three firms who, by training and past experience, are well qualified with respect to the peculiar problems of low-rent housing.

(d) *By the establishment of an architectural office within the local authority.* This method may, in rare instances, be necessary, but should be avoided so far as possible. The experience of the USHA indicates that the employment of carefully selected architects on a professional basis will bring to each project maturity of judgment plus originality of ideas and that a new organization more or less hastily assembled for the purpose will lack not only this experience and originality, but the incentive of maintaining a professional reputation as well.

(e) *By qualifying competition.* In this form of competition a hypothetical problem, incorporating typical questions involved in planning USHA-Aided projects, is presented by the local authority. The competing local architects prepare and submit drawings embodying their solutions of the problem to a group of experts selected by the local authority (hereinafter referred to as the "Jury"). The Jury examines the drawings and, upon the basis thereof, selects the architects qualified for work on USHA-Aided projects. The architects qualifying make up the list (hereinafter referred to as the "Panel") from which the local authority selects architects for its future projects. The advantages of this method of selection may be listed as follows:

(1) The Method supplies a scientific process for determining, in advance, the architects who have the analytical ability necessary to solve the new problems and meet the new issues involved in planning USHA-Aided projects. Many architects who are otherwise thoroughly competent have been unable to solve the special problems involved in planning large-scale, low-rent housing projects.

(2) The Method supplies the local authority with a Panel of architects from which, under the terms of the Competition Program, architects will be selected for future projects. The local authority may reserve complete discretion as to selection from the Panel or may request the Jury to assign a numerical order of merit or to arrange working groups. Architects who are selected for the Panel are thereby given an incentive to study and prepare for work in the low-rent housing field.

(3) The Method is inexpensive. The costs to the local authority are limited

mainly to the expenses incurred in printing or mimeographing and mailing the "Competition Program" (described in Sec. 609.3 (c)) and any necessary compensation to the local architect or housing expert serving on the Jury. The cost allocable to any one of several projects will be particularly low, since one competition will ordinarily supply a Panel which may be used for a considerable period of time.

(4) The Method tends to expedite the program by obviating the delays which sometimes develop in obtaining qualified architects when they are needed. Selection under the Method may be completed well in advance of the time of actual need as no particular site or any other purely local conditions are involved.

(5) The Method provides an exceptional opportunity for brilliant but inexperienced young architects. Such architects are at a disadvantage in certain forms of competition since "names" and established reputations tend to outweigh technical resourcefulness and originality. The Method tends to reduce these handicaps for younger men and to facilitate their qualifying. The Method also provides a means of associating younger men with qualified seniors and thereby developing the professional maturity of the juniors as well as obtaining a nice balance between originality and experience.*† [Par. I]

§ 609.2 Selection of method. The advantages of selection by direct employment of a single firm or a very small group appear to greatly outweigh the advantages of selection by direct competition, by direct employment of large groups, or by establishment of an architectural office within the local authority. However, depending upon the size of the project, the future plans of the particular authority, and other pertinent considerations, the selection by qualifying competition may be found to be the most expedient.*† [Par. II]

§ 609.3 Procedure on qualifying competition. The principal steps in organizing and carrying out a qualifying competition are as follows:

(a) The local authority notifies the local architects that a "qualifying competition" will be held to obtain a Panel of architects for future projects. Interested architects are advised to obtain from, and file with, the local authority applications for the Competition Program. The letter of notification should also state that the proposed competition will have the approval of the American Institute of Architects and that applicants should submit with their applications proof of their eligibility, such as registration in States having a registration law or other proof of practice in States not providing for registration.

(b) The local authority obtains from the USHA a suggested form of Competition Program setting forth a hypo-

* Sections 609.0 to 609.4 issued under the authority contained in Sec. 8, 50 Stat. 891; 42 U.S.C., Sup. IV, 1408.

† The source of Sections 609.0 to 609.4 is Addendum 1, April 7, 1939, and Addendum 2, July 13, 1939, to Bulletin 5.

theoretical problem in large-scale, low-rent project and unit planning. This problem is designed to show the analytical ability of the architect rather than his skill as a draftsman. The drawings required are few and the time allowed short.

(c) The local authority arranges and prepares copies of the Competition Program. To meet the requirements of the USHA and the American Institute of Architects, the Program must provide for a Professional (architectural) Adviser to assist in adapting the Competition Program to local needs, to answer questions, to rule on mandatory requirements of the Program, and generally to assist the Jury in determining the qualifications of the applicants; assure absolute anonymity of the applicants during the competition; state that future awarded contracts will be in accordance with the USHA suggestions; provide for a Jury comprising a member of the local authority, an architect selected by the local architectural society, and a specialist in housing (preferably an architect) to select the winning submissions and, if so requested, place them in order of merit; indicate the places at which and the time when the Jury will render judgment; and state that a brief report by the Jury on the competition will be published. (The USHA suggested form of Competition Program satisfies all the requirements set forth in this subparagraph (c)).

(d) Upon receipt of the executed applications, the local authority issues copies of the Competition Program. The applicants then prepare and submit drawings embodying their respective solutions of the hypothetical problem.

(e) The drawings are checked by the Professional Adviser, or other representative of the local authority for mandatory disqualifications. Each set of drawings is submitted wrapped, together with an envelope containing the name of the submitter. The representative of the local authority, after checking the drawings as indicated, above, numbers each set and numbers correspondingly the envelope containing the name of the submitter. The eligible drawings are then submitted to the Jury.

(f) The Jury examines and renders judgment on the drawings. The judgment will ordinarily require about three days. In the case of a very large number of entrants (for example, a hundred or more) careful judgment will require a longer period.

(g) The Professional Adviser or other representative of the local authority, in the presence of the members of the local authority, opens the envelopes containing the names of the persons submitting the drawings, reads the Jury report, and makes public the awards of the Jury. The architects qualifying constitute the Panel from which the local authority must, pursuant to the terms of the Competition, select architects for its future projects.*† [Par. III]

§ 609.4 Miscellaneous considerations. In addition to the suggestions contained in the foregoing paragraphs, the following points are offered as suggestions for consideration by the local housing authorities in selecting architects:

(a) In case a local authority has made arrangements with architects to do preliminary work on a contingent basis, and where the local authority is without funds, or sufficient funds, for administrative purposes, it is suggested that the architect might prepare the major part of the application in addition to preparing the preliminary site plan and other architectural studies.

(b) If the local authority does not contemplate the employment of a Technical Director as well as an Executive Director, the Executive Director should have a technical background.

(c) In the case of multiple projects it is considered desirable for the authority to designate the Technical Director to act as the clearing house for all architectural ideas. We believe the Technical Director should be employed on a full time salary basis rather than on a contract fee basis. If the local authority does not have a Technical Director, one of the architects on one of the projects should be designated to act as the clearing house. In this connection it should be made clear that the local authority should reserve the right to use ideas developed by one architect, or group of architects, in the development of other projects. In any event, when architects are employed in large groups, the local authority should insist that each group enter into an organization agreement which would set up a Director of the group as the responsible contact between the authority and the architectural group; such an agreement should be submitted to the local housing authority for approval.

(d) If two, or more, firms of architects are engaged for a single project, they should be chosen with the thought in view that it is desirable to secure a diversity of advantages by this process. Hence, it should be borne in mind that an ideal group will comprise an outstanding designer, a man with wide practical construction experience, a man fully experienced in writing specifications, and finally, a man with organizing ability to see that work is coordinated and progress maintained in a business-like manner.

(e) On projects which are large, and which entail considerations of city planning, the local authority should consider the desirability of engaging a good city planner as a consultant, unless the engaged architects have such a man among their number.*† [Par. IV]

NATHAN STRAUS,
Administrator.

OCTOBER 21, 1939.

[F. R. Doc. 39-3969; Filed, October 27, 1939;
10:16 a. m.]

**TITLE 33—NAVIGATION AND NAVIGABLE WATERS
WAR DEPARTMENT**

CHAPTER II—RULES RELATING TO NAVIGABLE WATERS

PART 203—BRIDGE REGULATIONS

§ 203.403 Battery Creek, S. C.; bridge (highway) between Beaufort and Parris Island, S. C.¹ In accordance with the provisions of Section 5 of the River and Harbor Act approved August 18, 1894, the following special regulations are prescribed to govern the opening of the drawbridge of the South Carolina State Highway Department across Battery Creek between Beaufort and Parris Island, South Carolina:

(a) The owner or agency controlling the bridge will not be required to keep a tender in constant attendance at the aforementioned bridge.

(b) Whenever a vessel, unable to pass under the closed bridge, desires to pass through the draw span, at least 24 hours' advance notice of the time the opening is required shall be given to the authorized representative of the owner or agency controlling the bridge.

(c) Upon receipt of such notice, the authorized representative of the owner or agency controlling the bridge, in compliance therewith, shall arrange for the prompt opening of the draw at the time specified in the notice for the passage of the vessel.

(d) The owner or agency controlling the bridge shall keep conspicuously posted on both the upstream and downstream sides of the bridge, in a manner that it can easily be read at any time, a copy of these regulations, together with a notice stating exactly how the representative specified in paragraph (b) may be reached.

(e) The operating machinery of the draw shall be maintained in a serviceable condition and the draw opened and closed at least once each quarter to make certain that the machinery is in proper order for satisfactory operation.

(f) These regulations shall take effect and be in force on and after November 1, 1939, and are supplemental to the "Rules and regulations to govern the operation of drawbridges crossing all navigable waterways of the United States discharging their waters into the Atlantic Ocean south of and including Chesapeake Bay and the Gulf of Mexico, excepting the Mississippi River and its tributaries." (Sec. 5, River and Harbor Act, Aug. 18, 1894, 28 Stat. 362; 33 U.S.C. 499) [Special regs., Oct. 16, 1939 (E.D. 6371 (S.C.—Battery Creek—21))]

[SEAL]

E. S. ADAMS,
Major General,
The Adjutant General.

[F. R. Doc. 39-3972; Filed, October 27, 1939;
10:58 a. m.]

¹These regulations are supplementary to Title 33, Chapter II, Part 203, Code of Federal Regulations.

TITLE 46—SHIPPING

BUREAU OF MARINE INSPECTION AND NAVIGATION

SUBCHAPTER E—MEASUREMENT

Part 17, *Rules for Suez Canal Measurement* and any and all amendments or additions thereto, is hereby rescinded and deleted.

Part 16, *Measurement of Vessels, General* and any and all amendments or additions thereto, is hereby rescinded and deleted and a new Part 16 is substituted therefor.

PART 16—MEASUREMENT OF VESSELS

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§ 16.0 *When effective.* These regulations are not retroactive; i.e., they do not apply to vessels the keels of which were laid prior to the date these rules become effective. These regulations become effective March 1, 1940.

§ 16.1 *Authority of Director.* (a) The Director of the Bureau of Marine Inspection and Navigation is charged with the supervision of the laws relating to the admeasurement of vessels, and on all questions of interpretation growing out of the execution of the laws relating to this subject his decision is final.

(b) The Director of the Bureau of Marine Inspection and Navigation shall, in the following sections, be referred to as the Director.

(c) Doubts arising in the minds of the admeasurers concerning decks to the hull, enclosures on or above the upper deck, shelter decks, method of procedure, etc., shall be submitted to the Director for his decision, and shall be accompanied by blueprints or sketches of the spaces in question giving all the facts bearing on same.

§ 16.2 *Officials authorized to admeasure vessels.* (a) Before any vessel shall be registered, enrolled, or licensed she shall be measured by an officer of the customs at the port or place where she may be.

(b) A vessel is not to be measured unless she is required by law to be registered, enrolled or licensed, or otherwise specially provided for.

§ 16.3 *Purpose for which measurements are taken.* (a) Tonnage measurements are taken for the purpose of ascertaining the internal capacity of measurable spaces.

(b) All measurements are to be taken in feet and fractions of feet, and all fractions of feet shall be expressed in decimals.

§ 16.4 *Register ton.* A register ton is a volume of 100 cubic feet.

§ 16.5 *Gross register tonnage.* (a) The gross tonnage referred to in the following sections is the gross register tonnage; that is, the gross tonnage exclusive of all permissible exempted spaces.

(b) The gross register tonnage of a vessel shall consist of the sum of the following items:

(c) The cubical capacity below the tonnage deck, excluding exemptible water ballast spaces within the measurable portion of the vessel.

(d) The cubical capacity of each between deck space above the tonnage deck;

(e) The cubical capacity of the permanent closed-in spaces on the upper deck available for cargo or stores, or for the accommodation of passengers and/or crew.

(f) All permanent closed-in spaces situated elsewhere available for cargo or stores, or for the accommodation of the crew, or for the charts, except cabins or staterooms for passengers constructed entirely above the first deck which is not a deck to the hull;

(g) The excess of hatchways.

§ 16.6 *Net register tonnage.* (a) The tonnage of a vessel remaining after the authorized deductions have been made from the gross register tonnage shall be deemed the net register tonnage.

(b) In ascertaining the net tonnage no space may be deducted unless it has previously been included in the gross tonnage and certified, showing the purpose for which used.

§ 16.7 *The marine document.* The marine document of every vessel shall show the date and place of build; the register length, breadth, depth, and, in vessels of more than two decks, the height of the upper deck to the hull above the tonnage deck; the number of decks and masts; build as to her head and stern; capacity under the tonnage deck, that of the between decks, and also separately, permanently enclosed spaces on or above the upper deck to the hull available for cargo or stores or for the accommodation of passengers (provisionally) or crew, and the omitted spaces, whether open or closed in, on, above, or below the upper deck; the gross tonnage; items of deduction; and net tonnage.

§ 16.8 *Application for measurement.* The builder of a new vessel required to be admeasured, or the person having supervision of changes and/or alterations affecting a vessel's register tonnage, is obliged to make application for admeasurement or tonnage adjustment as the case may be, in writing, to the collector of customs of the district in which the vessel is located. Such application shall be made before cargo or ballast is taken on, and in case of a new vessel, before boilers or engine is installed or compartments partitioned off.

§ 16.9 *Drawings.* (a) The builder of a vessel of over 100 gross tons, approximately, is requested, if practicable, in order to facilitate measurement, to furnish, at a reasonable time before the vessel is launched, to the principal customs officer nearest to the place where the vessel is building, the following plans:

(1) A drawing of the cross section in which is shown the construction of the double bottom, if there be one;

(2) An inboard view of the longitudinal section, showing the double bottom, its use or uses, if existing, otherwise the

floors, the compartments for water ballast, other than the double bottom, the decks, the superstructures, hatchways, etc.;

(3) Deck plans showing the arrangement and uses of different compartments and deductible spaces;

(4) Drawings showing the arrangement of the engine, boiler, and fuel compartments; and

(5) A tonnage plan showing half breadths of the sections at the points of division of the tonnage length of the vessel into a certain number of equal parts in accordance with the rules for the measurement of spaces under the tonnage deck. The scale or scales of these drawings are to be indicated thereon.

The collector of customs is to be advised of any subsequent changes in the vessel and furnished copies of the corrected plans, or a statement of such changes.

(b) *Sketches.* When admeasuring a small craft for which there are no blueprints, the admeasurer should make a rough sketch of the inboard profile, hull and deck plans (arrangement plans), recording all necessary dimensions thereon. From such sketches neater ones may be prepared and filed with the tonnage admeasurement (Form 1410). Sketches should show the following details: The inboard profile should show the depth of bottom frames or floor timbers if fitted, superstructures, position and use of spaces in the hull and those above deck; the midship cross section, the floors or floor timbers, thickness of inner and outer skin, depth of side frames, etc., and the arrangement plans, the plane outline of hold and deck erections and use of spaces. See Figure 1 (Sec. 16.65) and definition of depth of frame (Sec. 16.69).

§ 16.10 *Measurements to be taken at an early stage.* Admeasurement should begin as soon as the vessel is sufficiently advanced in construction to permit its being done, usually when the decks are laid, the hold cleared of encumbrances to admit the required depths and breadths being properly taken; before the engine and boilers are installed and accommodations are partitioned off.

§ 16.11 *Uniform system required.* (a) The following directions are given showing the progressive steps to be followed in the process of admeasurement. It is important not only that the rules be followed, but that required measurements be taken and calculations made in a uniform and correct manner that one general system may prevail throughout the service respecting this subject.

(b) Measurements taken aboard are to be recorded in the "Memorandum of Dimensions" known as Form 1413.

§ 16.12 *Forms.* The following forms will be furnished the measuring officers upon request:

Master Carpenter's certificate (book form), Form 1261.

Master Carpenter's certificate (for loose leaf binder), Form 1261A.

Special appendix to certificate of registry of American passenger vessels when trading to foreign ports, Form 1265A.

Application of owner for official number, Form 1320.

Notice of award of official number to vessel, Form 1321.

Inspector's certificate of official number, Form 1322.

Memorandum of dimensions (taken on vessels the tonnage length of which exceeds 100 feet), Form 1413.

Memorandum of dimensions (taken on vessels the tonnage length of which is 100 feet or under), Form 1413A.

Tonnage admeasurement (for vessels having a tonnage length exceeding 100 feet), Form 1410.

Tonnage admeasurement (for vessels having a tonnage length not exceeding 100 feet), Form 1410A.

Certificate of admeasurement, Form 1414.

Card index (5" x 8") for large vessels, Form 1415.

Card index (5" x 8") for smaller vessels (100'), Form 1415A.

Suez Canal special tonnage certificate, Form 1417.

For other forms required see Bureau of Marine Inspection and Navigation catalogue.

§ 16.13 *Measuring instruments.* (a) The measurements should be made with a waterproof tape, graduated into feet and tenths of a foot, and as nearly inelastic as possible.

(b) Sliding rods which are of three sizes: One 3 feet long for taking depths from 3 to 5.8 feet; another 6 feet long for taking depths from 6 to 11 feet, or, with the extension piece attached, to 16 feet; and a third one 11 feet long for taking depths from 11 to 21 feet, or, with the extension piece attached, to 26 feet. The movable or index rod in each has an arrow index traversing a decimal scale on the fixed rod. Greater depths may be taken by inserting into the ends of the index rods, and extension piece, provided with sockets for this purpose one or more joints of lift rods described below:

The fixed rod is graduated in feet (in red) and tenths and half-tenths (in black), and when the ends of the rods are well together the arrow on the index rod points to the figure indicating the constant length of the fixed rod, and as the index rod is moved up the arrow indicates the length from the upper end thereof to the lower end of the fixed rod. Bear in mind, however, that when you use any of the attachments referred to above you must add to the reading on the fixed rod the net length of the attachment used; e. g., if the 6-foot rod is extended to its limit, 11 feet, which is reached when the arrow on the index rod is fair with the upper end of the fixed rod, and the extension piece is at-

tached, which is done by slipping the bands on the lower end of it over the upper end of the index rod until the upper edge of the upper band is fair with the upper end of the index rod, and by fastening (on the groove side of the index rod) with set screws in the said bands, the length will not be 11 feet, as shown by the reading, but 16 feet, the reading plus the increment due to the attachment (11 feet \pm 5 feet). This increment may be further increased by inserting into the end of the extension piece one or more joints of lift rods, each of which is about 3.95 feet when adjusted.

At the station of the area to be measured in single-deck vessels the rod is to be placed on the ceiling, or floor beam or timber when no ceiling is present, alongside the keelson or line of the keel, perpendicular or square thereto, and also parallel to the middle longitudinal plane of the ship, and forced up firmly under the deck and fixed in such position by the set screws; from the depths thus found take one-third of the round or one-half of the pitch of beam to get the depth of the area.

The depth of an area taken as above is to be divided into the required number of equal parts. (See Sec. 16.29d) With the rod fixed in position as above, set off on it from its lower end one of these equal parts, or common interval between the breadths, using white or other colored chalk or material that will make a visible mark, which gives the position of the first breadth above the bottom breadth, and from this when the rod is taken down the positions of the remaining breadths are to be set off at the said common interval.

The positions of all the breadths being thus severally marked on the rod, it is then to be set up again and firmly fixed or held in position, and the breadths may be readily and correctly measured by means of the tape held at right angles across the rod at each of the positions marked thereon.

In measuring vessels with more than one deck, where the second deck from the bottom is the tonnage deck, it will be necessary to use two of these rods in combination, one directly over the other, one in the hold under the first deck, as directed for single-deck vessels, and the other in the space between this deck and the tonnage deck. In this combination the tonnage depth is found by adding together the two depths and the thickness of the deck between the rods and deducting from this combined depth one-third of the round or one-half pitch of beam; then proceed as before directed.

(c) A 2-foot rule with a hinge joint is required for taking the rake of the bow and stern and for other purposes.

(d) A carpenter's square will be found useful for setting the sliding rod perpendicular to the keelson.

(e) For taking the breadths in the hold which are beyond the reach of the measuring officers two lift rods will be needed, each about 8 feet long (made by joining two sections), one having a pulley at the end over which the tape may be drawn when the rods are held in position and the other an attachment for holding the ring at the end of the tape.

(f) For transferring the location of the stations or ordinates of the transverse sections from the deck to the keelson, and sometimes, for finding registered breadth, a plumb line and bob are needed.

(g) For measuring laden vessels for Panama or Suez Canal tonnage certificates, a girtling galvanized chain of an approved make is required.

§ 16.14 *Stem.* A vessel's stem is to be described according to its contour; i. e., straight, raked, curved or square.

§ 16.15 *Stern.* Describe the stern according to its shape at the after end below the upper deck or line of same, as round, elliptical, square or sharp.

§ 16.16 *Masts.* In addition to what are commonly known as masts, spars set up at the center line of the bridging at the top of king-posts of certain vessels for signals and wireless antennae, etc., are to be considered as masts. The number of king-posts and derrick posts, etc., independent of the supported masts are to be separately stated after the number of said masts; e. g., "Two masts and eight king-posts," or as the case may be.

§ 16.17 *Ceiling, cargo battens, etc.—(a) Ceiling.* Ceiling hereafter referred to is considered the permanent planking fitted directly on the inboard side of the frames, or floors, or the top of the double bottom. The maximum allowance for ceiling is 3 inches on the bottom and 3 inches on each side. When ceiling is found to be less than 3 inches thick, allow the actual thickness thereof; that is take dimensions to the face of the ceiling so found. Depths and breadths shall not be decreased due to grounds supporting ceiling nor shall allowance be made for ceiling on the under side of deck beams.

(b) *False Ceiling.* In small vessels with "false ceiling" in a portion of their cabins, in their holds, or forming a part of their seats or lockers, etc., therein, and which stands off from their frames—that is, not fitted to them as ordinary ceiling—take the breadths through the said "false ceiling" to the inner faces of the vessel's frames, deducting therefrom the thickness of the "false ceiling" on each side. If, however, there is a ceiling fitted on the frames in addition to the "false ceiling," take the breadths to the ceiling on the frames, making no allowance for the "false ceiling."

(c) *Cargo Battens, insulation.* This section applies to cargo battens (spar ceiling) and refrigeration insulation.

§ 16.18. *Register length.* (a) The length measured on the tonnage deck,

from the fore part of the outer planking (where it is rabbeted) on the side of the stem of wooden vessels, or fore end of lap of outer plating of steel or iron vessels, to the after side of the main sternpost, shall be accounted the vessel's register length. See Figures 2 and 3 (Sec. 16.65).

(b) In the case of screw vessels with no sternpost, take the length to the forward side of the rudder-stock or line of same extended through the deck.

(c) The register length of scows and barges, with a square bow and stern sloping up from the bottom to the deck, and with neither stem nor sternpost, is to be taken on the deck from the extreme point of the hull at the bow to the extreme point of the hull at the stern; that is, the over-all length of the hull, not including guards or rubbing strakes, is to be considered the register length of such vessel.

§ 16.19 *Register breadth.* (a) A measure from the outboard face of the outer skin on one side to the same point opposite, taken at or below the upper deck and at the widest part of the hull is the register breadth. See Figure 4 (Sec. 16.65).

(b) A practical method for finding the register breadth is, to add twice the sum of the depth of the vessel's side frames and thickness of outer skin, plus an allowance for thickness of ceiling, insulation or cargo battens if fitted, to the greatest tonnage breadth.

§ 16.20 *Register depth.* The register depth is taken at the middle of the tonnage length from the under side of the tonnage deck, or line of same, down to the top of the floors at the side of the keelson; or to the ordinary floor timbers or plates when flitted; or to the inner bottom plating (tank top) of a cellular double bottom; as the case may be, in a direction perpendicular to the keel.

(b) Should ceiling be fitted on the above mentioned bottom members, the register depth shall be measured to the top of same and to this dimension shall be added the height of grounds, battens or other type of support for the ceiling. See Figures 4 and 5 (Sec. 16.65).

(c) If the vessel is measured in parts, as explained later; the register depth is taken at one-half the tonnage length of the vessel.

§ 16.21 *Deck to the hull.* The uppermost complete deck, which extends from stem to stern and from side to side at all points of its length and below which there are no openings through the hull as required in shelter deck spaces and also having its hatchways or other openings provided with means for closing them against the action of the sea and weather upon the space below enclosed by the sides of the vessel, making the said space a fit place for the stowage of general cargo, is to be considered the upper deck to the hull.

§ 16.22 *Enumerating the decks.* In enumerating the number of decks, only

those which are without such openings as exempt the spaces beneath from being included in the tonnage under the upper deck are to be considered. Other decks, if any, containing such openings as exempt the spaces beneath from inclusion in tonnage should be separately described after the number of decks proper; e. g., "Two decks and shelter deck," or as the case may be. Partial decks, forward or aft, such as orlop decks, are not considered as decks.

§ 16.23 *Register height.* If the vessel has three or more decks to the hall, then the height from the top of the tonnage deck planking and/or plating to the under side of the planking and/or plating of the uppermost deck shall be deemed the register height of the uppermost deck above the tonnage deck.

§ 16.24 *Round of beam.* The round of beam (camber) is the perpendicular distance down from the crown of the under side of the tonnage-deck plank or plating at the center to a line stretched athwart the vessel from end to end of the top of the beam and is to be ascertained at every place where it is to be used in the measurement. See Figures 6 and 16 (Sec. 16.65).

(b) The round of beam of the tonnage-deck, which must be known before taking the tonnage length, as well as before measuring the depths of the tonnage sections, may be taken either at the under side of the deck by stretching a small line tightly from end to end at the top of the beam, which will show the round or camber of the beam at the center; or it may be taken, if more convenient, at the upper side of the deck by stretching a line tightly across, held at equal heights from the deck at each side of the vessel, so as just to touch the crown of the deck at the middle line; then the distance from the deck to the line at the vessel's sides gives the round of beam. See Figure 6 (Sec. 16.65).

It is necessary to take the round of beam at each point of division of the length except when the vessel has a flat deck or one practically so. In lieu of the above methods, it may be ascertained on the basis of one-fourth of an inch to the foot of beam at each section in iron or steel vessels of the usual camber of beam. This method is more accurate and easier of application than the others.

(c) When the round of beam is .15' or less, it may be ignored.

§ 16.25 *Pitch of beam.* (a) In vessels whose tonnage deck has a pitch instead of a round from its side at the shell plating to its center, find the height of the pitch of the beam at each tonnage section. It may be done in any practical manner.

(b) The height of the pitch of the beam is the perpendicular distance from the apex at the under side of the tonnage deck plank or plating at the center of the deck down to a straight line from end to end of the top of the beam. See Figure 7 (Sec. 16.65).

§ 16.26 Tonnage deck. (a) The tonnage deck is the upper deck to the hull in vessels having not more than two decks, and the second deck from the keel in vessels having more than two decks.

(b) If the tonnage deck consists of several partial decks extending with breaks from stem to stern, and if the partial decks are at different heights, the line of the lowest deck will be taken as the tonnage deck, and the headroom above such line under the higher deck or decks will be measured as a break.

(c) Engine and boiler casings, peak tanks and cofferdams are not considered as breaking the continuity of a deck. See Figures 8 and 9 (Sec. 16.65).

§ 16.27 Tonnage length. The tonnage length is the longitudinal distance on the under side of the tonnage deck, or line of same from a point where the line of the inboard faces of the side frames, or ceiling thereon if any, intersects the side of the stem, to a point aft on the inboard face of the stern timber or cant frame, or ceiling if fitted thereon. See Figures 10 and 11 (Sec. 16.65).

§ 16.28 Depth of a transverse section—(a) Method for finding. The depth of a tonnage section is a measurement taken at its proper point of division of the tonnage length, from a point at a distance below the tonnage deck equal to one-third of the round or one-half of the pitch of the beam, down to the upper side of the floor timbers or floor plates; or bottom floors alongside the keelson; or longitudinals; or the tank top of a cellular double bottom, as the case may be.

(b) *Ceiling.* If ceiling is fitted on the bottom floor members, depths of transverse sections terminate on the upper face of the ceiling of average thickness. See Figure 4 (Sec. 16.65). For tonnage depths where ceiling is fitted on tank top, see Figure 5 (Sec. 16.65).

(c) *Raised platform.* In vessels with a raised platform in the bottom and no ceiling fitted on the bottom frame members, the depths are to be taken down through the platform to the upper side of the floor timbers or floor plates as described above, deducting therefrom the thickness of the ceiling of the platform in question.

(d) *Depths in way of interruptions to tonnage deck.* Should depths of transverse sections fall where the tonnage deck is interrupted, due to a break, hatches, etc., then depths are taken from the line of continuation of the tonnage deck.

(e) *Rise of double bottom.* In vessels having a double bottom the tank top of which, in way of tonnage sections, rises from the center line to the wings, the tonnage depth of each section will terminate at one-half height of the dead rise. See Figure 12 (Sec. 16.65).

(f) *Fall of double bottom.* In vessels having a double bottom the tank top of which, in way of tonnage sections, has a straight fall from the center line to

the wings the tonnage depth of each section will terminate at one-half height of fall. See Figure 13. (Sec. 16.65).

§ 16.29 The tonnage depth—(a) Location. The depth generally referred to as "the tonnage depth" is located at the middle point of division of the tonnage length and is found in a manner similar to the other depths of transverse sections.

(b) *Tonnage depth in a vessel measured in parts.* Should a vessel be required to be measured in parts, and each part measured as a separate unit; then a tonnage depth shall be found for each part or unit at one-half its tonnage length. See Figure 14 (Sec. 16.65).

(c) *Tonnage depth is the first depth measured.* The tonnage depth governs the number of parts into which it and all the remaining depths of the part in which said depth is located, is divided.

(d) *Divisions of tonnage depth.* If the tonnage depth at the middle of the tonnage length of the vessel or part of same does not exceed 16 feet, divide each depth into four equal parts; but if the depth at the middle of said length exceeds 16 feet, divide each depth into six equal parts.

(e) *Intervals.* The common intervals between the points of division of depths, also one-third common intervals are to be carried to the nearest hundredth of a foot.

(f) *Purpose for dividing tonnage depths.* Depths are divided to indicate points at which tonnage breadths are to be measured.

§ 16.30 Tonnage breadths—(a) Breadths. An inside horizontal breadth is to be measured at each point of division of the depth marked on the sliding rods placed in position as directed in Sec. 16.13 (b) and also at the upper and lower points of the depth. Extend each measurement to the inboard face of the ordinary frames, or line of same, or inboard face of ceiling, or battens, or insulation of average thickness if fitted. See Figure 15 (Sec. 16.65). Care must be taken that the sections shall be parallel to each other and at right angles to the axis of the vessel.

(b) *Upper breadth.* In finding the upper breadth of each transverse section make no allowance for the excess of the deck-beam shelves, etc., over the permissible thickness of ceiling, if any, thereunder.

Referring to Figure 16 (Sec. 16.65), observe that after the deck is laid the upper breadth (represented by the line U. B.) passes through the deck on each side. Hence, it is impossible to take it at its true position. In such cases take it on the deck, allowing within the extended line of frames the thickness of the ceiling if any on the frames under deck, as shown by line T. B. in the figure.

Owing to deck-beam shelves or other obstructions, it can be more conveniently and accurately taken here than

under the deck, and, besides it will be only a few inches from its true position. In vessels which have upright sides the said breadth so taken will be correct, but in the case of vessels with inclining sides the necessary allowance must be made for the deviation of the sides from the upright in the few inches above the true position of the said breadth.

(c) *Bottom breadths.* Bottom breadths are taken only so far as the flat of the floor extends. See B. B. Figures 4 and 5; Figures 15 and B. B. Figures 17 and 18 (Sec. 16.65).

When bottom frames rise immediately from the keelson, or combined keel and keelson, and bona fide floor timbers or floor plates are not fitted, bottom breadths are equal to the breadth of keelson, or combined keel and keelson as the case may be. See B. B. Figure 19 (Sec. 16.65).

The bottom breadths of transverse sections of vessels of longitudinal construction falling in the hold where there is no double bottom and where there is a dead rise of the bottom out to the sides of the vessel may be considered to be equal to that part of the bottom plating not affected by dead rise.

(d) *Bottom breadths in case of rise or fall of double bottom.* Bottom breadths falling in way of a double bottom the top of which rises or falls from the midship longitudinal plane to the wings are measured from and to the inboard end of the frame brackets, (or ceiling thereon if fitted) connecting the double bottom with the frames. See B. B. Figures 12 and 13 (Sec. 16.65).

§ 16.31 Measuring the tonnage length. (a) The cubic capacity of the space below the tonnage deck is determined by use of the tonnage length together with the areas of a prescribed number of transverse sections as hereinafter described.

To determine the extreme points of the tonnage length as indicated by Sec. 16.27 and T. L. in Figures 10 and 11 (Sec. 16.65), observe the following:

(b) *Vertical bow and stern.* In vessels having a vertical bow, also a vertical stern, both above and below the tonnage deck, measure horizontally the depth of frames, also the thickness of ceiling thereon if any, at the extreme forward and after ends immediately under the tonnage deck. Mark these measurements on the upper side of the tonnage deck, from the outer shell and in the direction in which the frames were measured. Then draw through the points thus obtained, lines parallel to the shell. The forward and after points of intersection of these lines indicate the points from and to which the tonnage length is to be measured.

(c) *Raked bow or stern.* In the case of vessels having a raked bow or stern at the level of the tonnage deck, the extreme points of the tonnage length are, when practicable, to be determined at the under side of the tonnage deck. The

distance from these points to a hatch coaming, bulkhead, etc., should be measured and transferred to the upper side of the tonnage deck as indicated in Figure 20 (Sec. 16.65).

(d) Should it be impracticable to determine the extreme points of the tonnage length at the under side of the tonnage deck, and should the thickness of this deck be considerable, as in the case of a wooden deck, the rake of the bow or stern within the thickness of the deck is to be taken into account. This is done after having first proceeded as indicated in subsection (b), by measuring the thickness of the tonnage deck and determining by means of a hinged rule, or any other instrument for finding angles under similar circumstances, the angle of the rake which the bow or the stern forms with the tonnage deck. Transfer thereafter this angle on the deck by drawing the lines A, B, C shown in Figure 21 (Sec. 16.65). A, B, represents the upper side of the tonnage deck and B, C, the after side of the stem or the inside of the shell at the stern, as the case may be. The perpendicular B, D, represents the thickness of the tonnage deck. The points T, L, in Figures 10 and 11 (Sec. 16.65) marked on the upper side of the tonnage deck are then to be moved forward at the stern or aft at the stem, as the case may be, for a distance equal to D, E, representing the rake within the thickness of the deck.

(e) It should be borne in mind that the condition for applying the method of setting out the angles on the upper side of the tonnage deck is that the stem or stern have the same angle of rake above and immediately below the tonnage deck. If the angle of rake at or immediately below the tonnage deck is a different one, then this last angle must be used.

(f) Should a vessel as referred to in subsection (c) have a square bow or stern, it will be necessary to make a correction for camber where such exists. This is done by increasing the thickness of the deck B, D, in Figure 21 (Sec. 16.65) by one-third of the round or one-half of the pitch of beam at the extreme point of the tonnage length.

§ 16.32 Divisions of tonnage length. (a) The tonnage length is to be divided into an even number of equal parts as required by the following table, according to the class in such table to which the vessel belongs:

Class	Tonnage length	Divisions
1	50 ft. or less	6
2	Above 50 ft., not exceeding 100 ft.	8
3	Above 100 ft., not exceeding 150 ft.	10
4	Above 150 ft., not exceeding 200 ft.	12
5	Above 200 ft., not exceeding 250 ft.	14
6	Above 250 ft.	16

(b) The points of division of the tonnage length, also each end of the length indicate the common intervals at which the depth is measured.

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Intervals and one-third intervals are to be carried to the nearest thousandth of a foot.

§ 16.33 Transfer of location of sections to keelson. (a) The tonnage length having been ascertained and the number of sections to be measured and the interval between them determined, a line is then to be extended down the main hatchway, at the middle line of the vessel, in a perpendicular direction.

(b) The distance of the midship tonnage section is then to be set off from this line in the same direction on the keelson, which gives the position of the midship section on the keelson, and the positions of the other sections are obtained on the keelson by setting off forward and abaft the midship section the common interval between sections as already determined.

The position of the midship tonnage section may be determined by any other practical means.

§ 16.34 Transverse areas, rule for finding. (a) Assuming the tonnage length exceeds 250 feet requiring that it be divided into 16 equal parts, and the tonnage depth at the middle of the tonnage length exceeds 16 feet, requiring it to be divided into 6 equal parts:

(b) Measure the depth at each of the fifteen points of division of the length as required, also at the extreme forward point (Section 1) and at the extreme after point (Section 17) of the length. See Figure 22 (Sec. 16.65).

(c) The extreme points of the length at the bow and stern, though described as being the positions of the first and last areas, do not in vessels of usual form yield any area for practical purposes. Therefore, in the computation for tonnage, where the first and last sections yield no areas, a cipher must be employed in their places. In vessels of unusual form, as, for instance, in barges or other craft in which the bow and stern are upright, with breadth also at those places, sections at the extreme points of the length will yield areas; in which cases such areas must be measured and used in the computation.

(d) Then measure the inside horizontal breadth at each of the 5 points of division of the depth, also at the upper and lower points of the depth.

(e) Number the breadths from above, numbering the upper breadth 1 and so on down to the lowest or 7th.

(f) Multiply the second, fourth and sixth by 4, and the odd numbered breadths by 2, except the first and last which are multiplied by 1.

(g) Add these products together.

(h) Multiply the sum thus obtained by one-third of the common interval between the breadths, and the product shall be deemed the transverse area.

(i) This process will be repeated for every section.

(j) Having thus ascertained the transverse area at each point of division of the length of the vessel, also

at each end of the length if they yield areas, as required above, proceed to ascertain the register tonnage of the vessel in the following manner:

(k) Number the areas successively 1, 2, 3, etc., No. 1 being at the extreme limit of the length at the bow and the last number at the extreme limit of the length at the stern.

(l) Then multiply the second and every even numbered area by 4 and the third and every odd numbered area by 2, except the first and last which are multiplied by 1.

(m) Add these products together and multiply the sum thus obtained by one-third of the common interval between the areas, and the product will be the contents in cubic feet of the spaces under the tonnage deck.

(n) Divide this product by 100, and the quotient, being the tonnage under the tonnage deck shall be deemed the register tonnage of the vessel, subject to the additions hereinafter mentioned.

(o) In every case when finding the capacity under tonnage deck, or a part thereof; whether the length be divided according to the table into 6 or 16 parts, as in classes 1 and 6, or in 2 or 4 parts as provided for in Sec. 16.35 (a) and the depths into 4 or 6 parts, thus requiring 5 or 7 breadths respectively to be taken; the above formula shall be used; i.e., even numbered breadths shall be multiplied by 4, and odd numbered ones by 2 except the first and last which are multiplied by 1. Similarly when running areas through the multipliers, the even numbered ones shall be multiplied by 4 and odd numbered ones by 2, except the first and last, which are multiplied by 1.

§ 16.35 Breaks in double bottom. (a) The tonnage length of a vessel having a break exceeding one-half of a foot in height, or a number of such breaks in the line of her double bottom, is to be divided into longitudinal parts establishing transverse vertical planes at such breaks. The length of each such part so found is then to be divided into a number of equal parts according to the class in the above table to which it belongs, just as if it were the length of a separate vessel: Provided, That such parts as are 20 feet or under in length may be divided into two equal parts, and those above 20 feet and not exceeding 40 feet in length may be divided into four equal parts instead of into six, as indicated in the table in Sec. 16.32 (a).

(b) When a vessel is required to be measured in parts, and each part measured as a separate vessel, the sum of the tonnages of the several parts is the capacity under the tonnage deck.

§ 16.36 Vessels having side tanks may be measured in parts. Vessels having side tanks extending above the floor line or double bottom, and through which tanks tonnage breadths normally pass, may be measured in parts. The length of the first part will extend aft to the

line of the forward bulkheads of the side tanks. See Figures 23 and 24 (Sec. 16.65). The length of the second part is equal to the length of side tanks, and the depths extend, at proper intervals under the tonnage deck, down to the athwartship lines forming continuation of the side tank tops. See Figure 25 (Sec. 16.65). The third length immediately below the second part should equal that of the second. The breadths are taken between the inboard faces of the side tank bulkheads, and depths from athwartship lines forming continuation of the side tank tops. The fourth part will extend from a line athwart the after bulkhead of side tanks to a point aft where tonnage lengths usually terminate. Measure separately a side tank, the tonnage of which is to be doubled, assuming both tanks are identical as they usually are; then the sum of the tonnage of the several parts thus found shall be deemed the capacity under tonnage deck.

§ 16.37 *Outside shaft tunnel.* To find the under deck tonnage of a vessel having an outside shaft tunnel, the shape of a section of which is usually the segment of a circle, measure the portion of the tunnel space included by the process of measurement in the under deck tonnage and subtract it therefrom. See Figure 26 (Sec. 16.65).

Divide the length of such tunnel into a convenient number of equal parts, then find an area at the points of division of the length, also at the ends, if the end ones yield an area, by the following formula:

$$\text{AREA} = \frac{2h}{3} (c)$$

c=chord of the segment of a circle.

h=height of segment (from chord to crown of arc.).

Having found the required areas, proceed in the manner provided for using the areas as ordinates in determining under deck tonnage, finding the sum of even numbered areas multiplied by 4; the odd numbered areas multiplied by 2, except the first and last which are multiplied by 1. Then multiply the sum so found by one-third common interval between sections. The result divided by 100 gives the tonnage of the tunnel to be subtracted from the under deck tonnage found by ignoring initially the projection of the crown of the tunnel into the hold.

§ 16.38 *Square end vessels having head blocks.* (a) In the case of vessels with square ends having head blocks extending from the deck to the bottom longitudinals on the rake of the bottom, the termini of the tonnage length will be at the inboard face of said block, and the area of the first and last section will equal the area of the inboard face of said block. See Figure 27 (Sec. 16.65).

(b) Should the head blocks extend inboard of the inboard face of the end frames, (see Figures 28 and 29), or should the head plates be excessive, (see Figure 30) (Sec. 16.65), consider the termini of

the tonnage length to be at points inboard from the ends of the vessel, equal in distance to the thickness of the shell plating, depth of side frame, plus ceiling if fitted. Rubbing strakes to be excluded.

§ 16.39 *Between decks.* (a) If the vessel has a third deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows:

(b) Measure the inside length of the space at the middle of its height, from the ceiling at the side of the stem to the ceiling on the midship stern timber; or, if there is no ceiling take the length from a point forward where a continuation of the lines of inboard faces of the side frames intersect the center line of the vessel aft to the inboard face of the midship stern timber. Divide the length into the same number of equal parts into which the length of the tonnage deck is divided.

(c) Measure also at the middle of its height the inside breadth of the space at each of the points of division of the length, the breadth at the stem, and the breadth at the stern (if round, as in the case of poops of similar form). Number the breadths successively 1, 2, 3, etc., commencing at the stem.

(d) Multiply the second and all other even numbered breadths by 4 and the odd-numbered breadths by 2, except the first and last which are multiplied by 1. Multiply the sum of these products by one-third of the common interval between the points at which the breadths were taken; the result will give, in superficial feet, the horizontal area at the mean height of such space.

(e) Multiply the mean horizontal area by the average height taken between the planks of the two decks and the product will be the cubical contents of the space; which, divided by 100 shall be deemed the tonnage to be included among the items comprising the vessel's gross tonnage.

(f) If the vessel has more than three decks, the tonnage of each of the between decks above the tonnage deck shall be severally ascertained in the manner above described and shall be added as items comprising the vessel's gross tonnage.

§ 16.40 *Superstructures.* (a) Permanent erections; i. e., forecastle, bridge, poop, break, etc., on or above the upper deck, shall be measured tier by tier, and exclusive of closed-in exemptible spaces, and open spaces, shall be included in the gross tonnage.

(b) *Length.* Measure at half height the mean length of such a space along its center longitudinal line, from and to the line of the inboard faces of the frames, or stiffeners, or ceiling if fitted. Divide the length into an even number of equal parts the common intervals of which shall be most nearly equal to that of the parts into which the tonnage length was divided. See Figure 31 (Sec. 16.65).

(c) *Breadths.* Measure at the middle of its height the inside breadths; namely, one at each end and one at each point of division of the length, numbering them successively 1, 2, 3, etc., the number one breadth being at the extreme forward end of the length.

(d) *Round end erections.* If the after end of an ordinary poop is elliptical, make the breadth at the extreme after end of its length one-half of the preceding breadth, but if it is round as usually found on lake vessels, two-thirds of the preceding breadth. See Figures 32 and 33 (Sec. 16.65).

(e) The after breadth of a round end house shall be found in the same manner as provided for finding the after breadth of a rounded poop. When the forward end is rounded the first breadth will be either one-half or two-thirds of the following breadth depending on the form of the round.

(f) Multiply the even numbered breadths by 4, and the odd numbered ones by 2, except the first and last which are multiplied by 1.

(g) Multiply the sum of the products by one-third of the common interval between the points at which the breadths were taken; the result will give the horizontal area at the mean height of such space.

(h) *Height.* Multiply the mean horizontal area by the average height measured between the decks, or the extended line of same. See b and c in Figure 9 (Sec. 16.65). Divide the product by 100 and the quotient shall be deemed the tonnage of such space.

(i) *Superstructures having breaks* in their covering deck or side lines shall be measured in parts. See Figure 34 (Sec. 16.65).

(j) *Superstructures on small craft* shall be measured similar to the method for finding the gross tonnage of larger structures. When a superstructure is erected over a cut-away portion of the tonnage deck the height of such superstructure is to be taken from the under side of its covering deck to a line of continuation of the tonnage deck. Should there be no camber to the tonnage deck, allow for same, in the covering deck of the erection if it exceeds .15'. After subtracting the tonnage of exemptible spaces in the superstructure, the remainder shall be listed under a name describing the erection, among the items comprising the gross tonnage.

(k) *Height of a turtle back.* The mean height of a superstructure referred to as a "turtle back" may be found by taking a height at each point of division of its length, at the after terminal of its length and at one-third common interval abaft the forward end of the length. The sum of the heights so taken, divided by the number of heights, will give a sufficiently accurate mean height.

§ 16.41 *Hatchways.* The cubical contents of the hatchways shall be obtained

by multiplying the length and breadth together and the product by the mean depth taken from the top of the beam to the under side of the hatch cover. From the aggregate tonnage of the hatchways there shall be deducted one-half of 1 per cent of the gross tonnage of the vessel exclusive of the tonnage of the hatchways, and the remainder only shall be added to the said gross tonnage as excess hatchways.

The hatchways referred to are the ones out in the open or in open spaces on the upper deck to the hull and on closed-in deck erections. Hatchways on between decks and on the deck of open erections are not to be measured and included in the aggregate of hatchways from which the statutory deduction is to be made. The total hatchways on between decks and on the portion of the decks within closed-in erections on the upper deck to the hull are automatically included in the between deck spaces and in the said erections by the process of measurement; and, of course, the hatchways on decks of open erections are not to be considered, serving as they do spaces not entering into the tonnage of the vessel.

§ 16.42 Record of exempted spaces. The tonnage measurement of all spaces on or above the upper deck that the measurer has not included in the gross tonnage of the vessel must be recorded in detail on Form 1410, "Tonnage admeasurement," which, when forwarded to the Bureau for examination and appropriate action must be accompanied by suitable plans or sketches drawn to scale, or a complete explanation for the proper consideration of the exemption of such spaces.

§ 16.43 Enclosed spaces exempted from inclusion in gross tonnage. The following closed-in spaces situated on or above the upper deck shall not be included in the gross tonnage provided they are reasonable in extent, adapted and used exclusively for the purposes outlined:

(b) **Companions.** Companions and booby-hatches serving as a protection for companion-ways (stairways or ladderways) leading to spaces below, whether such spaces are exempted or not. See a, b, c and d in Figure 35 (Sec. 16.65).

(c) **Galleys.** Spaces fitted with ranges or ovens (bakeries), without regard to the category of the persons they serve.

(d) **Light and air.** Spaces forming part of the propelling machinery space, or serving for the admission of light and air to such machinery shall be exempt under the heading of light and air. When no part of the propelling machinery extends below the upper deck, the space occupied by same is exemptible in its entirety together with such fuel bunkers as are located on or above the upper deck. Where fuel bunkers or tanks are located wholly or in part below the

upper deck the space so occupied below the upper deck is not deductible.

(e) **Light and air on small boats.** A house of reasonable size, into which the propelling machinery projects above the deck line, or a similar house used exclusively for light and air over such machinery on small boats is exempted, in its entirety, as light and air.

A compartment of reasonable size, bulkheaded off and similarly used, located in a house serving other purposes is likewise so treated.

When propelling machinery and/or light and air space, not bulkheaded off, is in a house serving other purposes, the actual length and breadth of the engine plus two feet each side and each end for working space, if such space is available, projecting up into the house becomes the length and breadth of exempted light and air, exclusive of such part as may be decked over and available for other purposes.

If bunks, galley, supplies, etc., are located in the hull abreast the engine and under a house open to same, as described in preceding subsection, and the 2-foot allowance for working space on each side of the engine base, overlaps working space at galley, or as the case may be, allow one-half the actual breadth on each side the engine, which breadths plus the actual engine breadth projecting up into the house becomes the permissible breadth of light and air exemption.

(f) **Machinery spaces.** Spaces occupied by machinery other than propelling machinery.

The spaces occupied by dredging machinery on the upper deck of dredging vessels which are not self propelled but which are required to be documented are to be exempted. No allowance is to be made for spaces occupied by such machinery below the upper deck.

(g) **Skylights.** Skylights and domes affording ventilation and light to the erection thereunder, except skylights over propelling machinery. None of the space below the covering deck of such erection shall be exempted from inclusion in tonnage unless an opening is left in the deck of the superstructure immediately under such skylight or dome to give ventilation and light to spaces below such deck line. See exempted skylight and a, b, c and d in Figure 36 (Sec. 16.65). This additional exemption is to be approved by the Director, and the request for such approval must be accompanied by a blueprint or sketch of said space. For treatment of skylights over propelling machinery see subsection (d) hereof.

(h) **Special exempted water ballast spaces.** Any space other than the double-bottom space adapted only for water ballast, certified by the collector not to be available for the carriage of cargo, stores, supplies, or fuel, shall be deducted from the gross tonnage as measured to

get gross register tonnage. (Act of February 6, 1909, Sec. 2, 35 Stat., 613, 46 U.S.C. 77.)

Adaptation for water ballast consists of having the space or spaces properly constructed and tested as ballast tanks; that the pumps, pipes, etc., for filling and emptying such tanks must be of suitable dimensions, connected to the ballast system, and completely independent of the cargo, fuel oil, feed or domestic water pumping apparatus. Access shall be only through oval or circular manholes, whose greatest diameter must not exceed 2 feet in the water-tight deck. Where a hatch exists over a space now to be used for the carriage of water ballast, plating shall be fitted and riveted or welded to form a watertight cover and a manhole as above described may be fitted in this cover plate. Such manholes except when fitted on the weather deck may be provided with a coaming not exceeding 6 inches in height. If these spaces are found being used for purposes other than water ballast, they are to be added to the gross tonnage of the vessel, and so included until such changes have been made as will definitely preclude their use for purposes other than for water ballast.

(i) **Water closets.** Any public room or compartment, if of reasonable size, fitted with hopper or hoppers, is for admeasurement purposes, a water closet. This definition includes a room or a compartment designated as a toilet, fitted with urinal, or urinals, shower bath or shower baths, in addition to the hopper or hoppers. A crew W. C., is considered public if it serves more than one member of the crew.

(j) **Wheelhouse.** The space for sheltering the man or men at the wheel. If the space is a combined wheelhouse and chart room, only such space as is necessary for the proper steering of the vessel shall be exempted. Should the space be partly above and partly below the upper deck, such part above the line of continuation of said deck is exemptible.

§ 16.44 Passenger cabins. Passenger cabins and staterooms immediately on the upper deck to the hull, permanently "closed-in" and fitted up for permanent use of passengers, are to be included in the gross tonnage. They will be exempted only when they have no berthing accommodations and have only temporary arrangements to protect passengers on short voyages from rain and the shipment of seas, constituting sheltered spaces under cover and open to the weather; that is, not enclosed.

Cabins and staterooms when assigned for use of passengers only, constructed entirely above the first deck which is not a complete deck to the hull, (see Sec. 16.21) may be exempted from inclusion in tonnage. In the case of Army transports, colliers, supply ships, hospital ships, etc., the term "passengers" shall include all officers, enlisted men, and

other persons who are not assigned to ship's duties and not entered on the ship's articles, and no deductions for spaces occupied by such persons shall be made, nor are cabins and staterooms occupied by them when situated on a deck not a deck to the hull to be included in gross tonnage.

For admeasurement purposes a cabin is defined as an apartment of a vessel, or the portion of the apartment that is assigned for the exclusive use of passengers. A cabin may consist of staterooms, bathrooms, toilets, libraries, writing rooms, lounges, dining rooms, saloons, smoking rooms, play rooms, etc., individually or collectively. The following spaces,—smoking room, lounge, foyer, library and similar public spaces, with or without a stateroom,—would, for instance be considered cabins. In short, any passenger stateroom or public space reserved entirely for the use of passengers is to be considered as coming under the meaning of the word "cabin".

A passenger stateroom is defined as an apartment, or one of the units of an apartment on a vessel, intended primarily to afford sleeping and/or other accommodations for passengers traveling alone or together.

§ 16.45 Open superstructures on or above the upper deck. (a) Nothing shall be added to the gross tonnage for any sheltered space on or above the upper deck which is under cover and open to the weather; that is, not enclosed.

(b) In deciding whether or not superstructures are permanent closed-in spaces and should be included in tonnage, the measurer should have regard to the character and structural condition of such erections.

(c) *Tonnage openings.* A forecastle, bridge, poop, or any other permanent superstructure on or above the upper deck to the hull, with one or more openings in its sides or ends, not fitted with doors or other permanently attached means (except as provided for below) of closing them, shall be exempted from inclusion in gross tonnage if the opening or openings are in conformity with the following provisions:

(d) *Two 3 x 4 foot tonnage openings.* When there are in one of the end bulkheads, two tonnage openings, each 3 feet wide by 4 feet high in the clear, one on each side of the center line of the end bulkhead.

(e) *One 4 x 5 foot tonnage opening.* When there is in one of the end bulkheads, as near as is practicable to the center line of the space, one tonnage opening at least 4 feet wide by 5 feet high in the clear, or its equivalent. An equivalent opening is considered to be one of at least 20 square feet in the clear, resulting from a breadth in excess of 4 feet and a height of not less than 3 feet. In such cases the owner's application for exemption and also a sketch of the space drawn to scale must be forwarded to the

Director for examination, and exemption must not be allowed without the Bureau's approval.

(f) *Intermediate bulkheads.* If the space is subdivided by intermediate bulkheads, such bulkheads shall have an opening or openings of the same dimensions as prescribed above.

(g) *Coamings.* If coamings are fitted to tonnage openings, their height must not exceed 2 feet at any part.

(h) *Permissible temporary closures for exterior bulkhead tonnage openings.* Tonnage openings prescribed for the above mentioned superstructures may be temporarily closed by shifting boards dropped into channel sections at the sides of such openings, or by plates or boards held in place by hook bolts, spaced not less than 1 foot apart, fitting over the stiffener bar at the sides, top and bottom, of such openings, or by a plate or boards held in place by bolts and cross pieces so arranged as not to be held in place by cleats or other attachments to, or bolts through the bulkhead. See Figures 37 to 43 inclusive (Sec. 16.65). Cover plates, etc., must fay against the bulkheads.

(i) *Battening gaskets.* In no case is the use of battening, caulking or gaskets of any material permitted.

(j) *Permanent fixtures.* Cleats, stud bolts, hinges attached to, or bolts in bulkheads at the edges of tonnage openings are prohibited as they are considered to be part of the means, in conjunction with the plate or boards, of closing the tonnage opening.

(k) *Closures for interior bulkhead tonnage openings.* The same temporary means of closing, except by plates, the tonnage openings in interior bulkheads are permitted.

(l) *Enclosure within an open space.* An enclosure within an exempted space must be treated according to its use.

§ 16.46 Open shelter deck space. (a) When exemption from inclusion in gross tonnage is claimed for the space between the upper and shelter deck due to a permanent middle-line tonnage opening in the shelter deck, the length of such opening must be at least 4 feet in the clear and its width equal at least to the width of the after cargo hatchway on the same deck. Provided, That an opening with rounded corners with radii not in excess of 9 inches may be considered to be square.

(b) *Position of middle line tonnage openings.* The distance between the after edge of this tonnage opening and the aft side of the sternpost must not be less than one-twentieth the register length of the vessel, or if the tonnage opening is forward, its fore side must not be less than one-fifth the register length of the vessel from the stem.

(c) *Coamings.* The coamings of the middle line tonnage opening must not exceed 12 inches extreme mean height above the deck, including the heading, etc., at the top for confining the hatch

covers, and the opening must be guarded with rails and stanchions. The arrangement of rails and stanchions shall in no way permit their use as part of the method allowed for temporary closing of the tonnage opening.

(d) *Cover.* When portable wood covers are fitted they may be held in place by lashings fitted to the under side of the covers; lashings may be of hemp, manila or other similar material.

When a metal cover is used, it may be held in place by hook bolts spaced not less than 18 inches apart, passing through the cover plate and hooked over angle stiffeners or flanges fitted on the outside of the coamings; i. e., the bolts must not pass through the stiffeners or flanges on the coaming, nor must there be any other attachments on the coaming for fastening the cover.

(e) *Opening not to be enclosed.* The middle line tonnage opening in a shelter deck must not be within a superstructure of any type.

(f) *Tonnage openings in shelter deck space.* When the permanent deck opening is situated aft, there must be at least two openings, each 3 feet wide by 4 feet high in the clear, in each of the transverse bulkheads within the shelter deck space forward of said deck opening; or should the deck opening be forward, the same requirements apply to transverse bulkheads abaft such forward deck opening.

(g) *Coamings.* Coamings, if fitted, must not exceed 2 feet in height at any part.

(h) *Temporary closure.* Excluding plates, the same temporary means of closing tonnage openings in the bulkheads of the well under the middle line tonnage opening in the shelter deck and in the intermediate bulkheads, if any, in the shelter deck space are permitted as described in Sec. 16.45 (h).

(i) *Well under middle line tonnage opening.* The well under the middle line tonnage opening (in the shelter deck) must have a minimum length of four feet throughout its entire breadth and height, and shall be kept clear at all times.

(j) *Scuppers.* A scupper, having a 5-inch minimum inside diameter, fitted with a screw down non-return valve geared to and operated from the shelter deck, must be fitted on each side of the upper deck in way of the permanent middle line tonnage opening in the shelter deck. See Figure 44 (Sec. 16.65).

(k) All openings in the upper deck to the hull must be provided with proper means for closing and battening down.

(l) *Closed in spaces.* Any closed-in space within an open shelter deck space shall be treated according to its usage.

§ 16.47 An open structure on small craft. A house on a small craft is considered open to the weather and exempted from inclusion in tonnage provided the after end of such house is entirely open, from the under side of its

roof beam down to a coaming not exceeding three inches in height, if there be a coaming, otherwise to the deck or line of same; and open in an athwartship direction from and to the inboard face of the end side stiffeners. See Figures 45 and 46 (Sec. 16.65). Closed-in spaces within an open erection will be treated according to their usage.

Such an opening may be guarded by wire mesh screens and/or temporarily closed by canvas secured at the top and lashed down or buttoned in place at the sides and bottom.

§ 16.48 Open vessels. (a) In ascertaining the tonnage of open vessels the upper edge of the upper strake shall form the boundary line of measurement, and a tonnage depth shall be taken from a line athwart the upper edge of said strake, at each point of division and each end of the tonnage length.

(b) An open vessel is one without a deck, or with a partial deck, or partial decks, the total length of which is less than one-half her tonnage length.

(c) Further, a vessel having a partial deck of any length, or one with a single full length deck which, in either case, lies more than one-sixth of the midship depth below the line of the upper edge of the upper strake to the usual point in the hold for taking the register depth, shall, for admeasurement purposes, be deemed an open vessel.

§ 16.49 Deductions from gross tonnage. (a) To ascertain the net tonnage, the tonnage of the following spaces meeting certain requirements shall be deducted from the gross tonnage.

(b) *Requirements prior to deduction.* No space shall be deducted unless it has previously been included in the gross tonnage; is reasonable in extent for the purpose appropriated and that the certification showing the exclusive use for such purpose is permanently cut in a beam, over the doorway, within the space, with these words: "Certified to accommodate _____ seamen," "Certified for the accommodation of master," "Certified mess room," "Certified W. C.," "Certified for boatswain's stores," "Certified chart house," "Certified for steering gear," etc., as the case may be.

(c) *Permanently cut.* Permanently cut is construed to mean that the certification must be center punched or otherwise cut where the material over the doorway is metal, whether a beam or plating, or carved when it is of wood. When the beam is not visible, the certification may be cut in the door frame or other fitting over the doorway on the inside of the room.

(d) *Crew spaces.* The tonnages of the spaces or compartments exclusively occupied by and appropriated to the use of the officers and crew of the vessel including:

Bathrooms. A bathroom is a compartment or a room containing (1) a bath tub, or (2) a bath tub and a water

closet, or (3) a shower bath or showers without a water closet, regardless of its location.

Clothes drying room.

Drinking water filtration or distilling plant below deck.

Hospital.

Crew mess rooms.

Officers' mess rooms.

Office of chief engineer.

Oil skin locker.

Pantry.

Recreation room.

Showers baths.

Sleeping rooms.

Smoking room.

Water closets, private. A private water closet is defined as one intended to serve not more than one member of the crew, whose stateroom or bedroom affords the only means of entrance thereto and is treated as part of the room served by it. Other water closets are considered to be public water closets for admeasurement purposes.

Water closets (public—below the upper deck).

Passageways and companionways serving the above spaces.

But none of these spaces when used by the passengers on a passenger vessel are to be deducted nor is the clerk's, purser's or paymaster's office deductible.

(e) *Nondeductible spaces on deductible passageway.* Lockers of less than two tons each, containing medicine, linen, mops, etc., for the free use of the crew; the ship's office, also spare rooms, not exceeding 2 in number and used as required by a pilot, customs officer, reserve engineer, a company official or employee shall not invalidate the deduction of a passageway serving as sole access to their location.

(f) *Master's cabin.* Any space exclusively for the use of the master. This space includes sleeping room, dressing room, bathroom, office and passageways serving the master's accommodations.

(g) *Measuring deductible spaces.* Deducted spaces, rectangular in shape, are to be measured by taking the product of the three dimensions, but when bounded by curved surfaces conforming to the sides of the vessel below the tonnage deck exceeding 15 feet in length, they are to be measured according to the formula on the back of Form 1410 for measuring peak tanks. When the space is less than 15 feet in length it may be measured by any practical method.

(h) When there is a platform, not more than 1 foot above the top of the bottom frames, to give a flat surface at the bottom of deductible spaces, and the space between the platform and said frames is not used for the stowage of gear, stores, etc., or for any other purpose, take depths of transverse sections to the top of the bottom frames and find areas as in the case of transverse sections for finding the tonnage below

the tonnage deck. See Figure 47 (Sec. 16.65). P represents the platform 1 foot above the top of the bottom frames. A, B and C are the positions of the sections. The forward section A, being sharp, yields no area.

When the platform is more than a foot above the bottom frames, then find the areas only of the portion of the sections above the platform. See Figure 48 (Sec. 16.65).

The depth of deducted spaces extending from top to bottom of a deck erection may be taken between the same points as the depths used in finding the tonnage of the erection. In other words, if the erection was measured before the deck covering, if any, was laid and the ceiling or paneling, if any, overhead was fitted, and depths were taken from the underside of the covering planks or plating of the deck over as required by the law and regulations to the deck beneath, the deck covering and overhead ceiling are to be disregarded in obtaining depths of the various deducted spaces. In determining the number of men that may be berthed in a space the Act of March 4, 1915 (Sec. 6, 38 Stat. 1165; 46 U.S.C. 80) is to govern.

(i) Deducted spaces in the between decks, or erections on or above the upper deck having curved sides are to be measured according to Sec. 16.40.

§ 16.50 Navigation spaces. (a) Spaces used exclusively for maneuvering or navigating the ship shall be deducted from the gross tonnage to the extent of what is considered reasonable. When the steering gear, anchor gear, helm, etc., are situated within a room unnecessarily large for the purpose, or are not partitioned off at all, a 2 foot allowance on every side of the apparatus may be made for working space. The height to be allowed should, as a rule, be the mean height of the 'tween deck space.

(b) *Anchor gear.* The spaces below, occupied by anchor gear, include the capstan, windlass, and chain locker. When the fore peak is used exclusively as the chain locker, it is to be measured in the manner prescribed for measuring fore peak tanks when used for water ballast.

(c) *Boatswain's stores.* Subject to the restrictions stated below, any space exclusively appropriated to and used for keeping the boatswain's stores may be deducted.

The allowance for boatswain's stores shall be 1 per cent of the gross tonnage in vessels of 100 gross tons and over, but this allowance shall in no case exceed 100 tons. In the case of vessels of less than 100 gross tons this deduction shall not exceed one ton.

(d) *Chart room.* The space for keeping the charts, nautical instruments and for plotting the course. When the space is a combined wheel and chart room, such part as is not exempted as wheelhouse shall be deducted.

In small vessels requiring the use of navigation charts, and where the cabin or saloon is the only space available for filing or use of such charts, one-half of the cabin or saloon, may be allowed for this purpose provided the allowance does not exceed 1½ tons.

(e) *Donkey engine and boiler.* The space occupied by a donkey engine and boiler, if situated within the boundary of the engine room or the casing above it, and if the donkey engine is used as an auxiliary in connection with the main machinery for propelling the vessel and this space forms part of the actual engine room it shall not be subject to a separate allowance.

When the donkey engine and/or boiler is in a house above the upper deck and not used in connection with the main propelling machinery as described above, the space thus occupied is an exemption and therefore must not be included in the gross tonnage of the vessel.

In all other cases the space occupied by the donkey engine and boiler, if same are connected with the main pumps (except cargo pumps) of the vessel, is to be allowed as a deduction from the gross tonnage, if reasonable in extent. It must be certified in the same manner as other deductible spaces.

(f) *Dynamo spaces.* The space or spaces when reasonable in extent, occupied by dynamos, switchboards and apparatus necessary for the operation of same, when located below the upper deck shall be deducted regardless of the service for which the dynamo or dynamos are used.

(g) *Pump room.* A pump room or space below the upper deck containing the pumps of the vessel which are used solely for handling ballast, feed water, water for cleansing purposes, and for freeing the ship of water entering her hold, etc., shall be deducted as pump room. A pump room or space below the upper deck containing pumps primarily used for handling cargo, as in the case of bulk-oil carriers, shall not be deducted. The portion of either of the above pump spaces above the upper deck is exemptible as machinery space.

(h) *Radio house.* The space set apart for sending and receiving wireless messages.

(i) *Storage of sails.* In the case of a vessel propelled wholly by sails, any space not exceeding 2½ per cent of the gross tonnage of the vessel when such space is used exclusively for storage of sails.

§ 16.51 Propelling machinery space—
(a) *Engine room must be measured.* Notwithstanding the ratable allowance for propelling power for which the act of March 2, 1895 (Sec. 1, 28 Stat. 741; 46 U.S.C. 77) provides, it is necessary to measure the engine room, regardless of size, in order to ascertain whether the allowance to be deducted for propelling power shall be regulated by a percentage of the gross tonnage or by the actual

tonnage of the engine room ascertained by measurement.

(b) *Spaces included in engine room must be in gross tonnage.* No space shall be included in the tonnage of the engine room unless it has first been included in the vessel's gross tonnage.

(c) *Deductions from engine room.* Conversely the spaces occupied by cabins, storerooms, etc., and any space not used in connection with propelling the vessel but included in the tonnage of the engine room through process of measurement must be subtracted therefrom.

§ 16.52 Spaces included in engine room. The space occupied by the engine room is to be understood to include not only that occupied by the engine room itself but also the space occupied by the boiler room, together with the spaces strictly required for the working of the engines and boilers, and consisting of the following items:

(a) Space below the crown. The crown or top of the main space of the actual engine room, from which the depths of the main space are to be taken, will either be at the under side of a deck, or, if the side bulkheads are sloping, at the point or height at which the slope terminates. See Figures 49 and 50 (Sec. 16.65).

(b) Space between the crown and the upper deck framed in for the machinery or for admission of light and air thereto.

(c) Space similarly framed in above the upper deck when permitted under paragraph (i), Act of March 2, 1895 (Sec. 1, 28 Stat. 741; 46 U.S.C. 77).

(d) The shaft tunnel or tunnels and the thrust block recess.

(e) The escape shaft. The trunked ladderway leading from the after end of the shaft tunnel to the deck, provided that it is no larger than is necessary for the purpose of access to and escape from the shaft tunnel. The part of an escape shaft above the upper deck line, also the companion sheltering the escape shaft is accorded the treatment of light and air space.

(f) When the fuel oil transfer pump is located in a separate space, this space, if reasonable in size, may be considered propelling machinery space provided said pump is not used for bunkering the vessel.

Should such pump perform the dual service of handling both ballast and transferring fuel oil to the settling tanks, one-half the space may be credited to propelling machinery space.

(g) *Settling tanks.* Fuel oil settling tanks used solely for rendering crude oil fit for consumption in the main boilers are considered as part of the propelling machinery space provided such tanks are within the confines of same. If such tanks are situated elsewhere, the case must be referred to the Director for his decision.

The permissible allowance for settling tanks is based on a four days' supply under full steam, which allowance must

not exceed one per cent of the vessel's gross tonnage.

(h) *Engineers' stores and workshops.* The engineers' stores, and/or workshops are regarded as part of the engine room, up to three-quarters of one per cent of the gross tonnage, if in the engine room, open to same, or separated therefrom only by a screen bulkhead and located below the upper deck.

§ 16.53 Length of engine room. As a rule, the length of the engine room extends from the bulkhead forward of the boilers to the one aft of the engines; but if these bulkheads limit a space considered excessive in length for the proper working of the boilers and engines, then that length only which is requisite for containing and operating the boilers and machinery, is to be allowed, with the addition of such length as is necessary for the stoking or working of the fires when the furnaces are in a fore-and-aft direction.

No such additional length is, however, required when the boilers are placed with the furnaces athwartship. The clear central space allowed between the boilers when the stoking is athwartship should be sufficient for this purpose. The point to which the after boundary of the length of the engine room is to be measured should be such as to provide sufficient space for the safe operation of the engine.

The measurer should allow such length between the engines and boilers as may appear to him necessary for the safe working of the machinery.

§ 16.54 Boilers and engine in same compartment. The boilers and engine are considered to be in the same compartment when there is a transverse bulkhead, screen or otherwise, through which the boilers project into the engine space, and where there is only sufficient space between the boilers and engine for the safe working of the machinery.

§ 16.55 Engine room measured in parts. If the boilers and engine are entirely in separate rooms, or if there is a break or breaks in the bottom or side lines of the propelling machinery space resulting from a break or breaks in the double bottom or varying height of floors thereunder, or from side bunkers or other spaces not considered propelling machinery spaces, measure each room separately as a whole or in parts, according to the number of breaks in its bottom or side lines, and the sum of the several results shall be deemed to be the tonnage of the said spaces.

§ 16.56 Rule for measuring engine room. (a) When the propelling machinery (boilers and engine) space is in the hold amidship, and without a break in its bottom or side lines, measure its length between the foremost and aftermost bulkheads or limits of its length, excluding such parts, if any, not actually occupied by or required for the proper working of the machinery. Divide the length by 2 and measure 3 depths of the

space, one at each end and one at the middle of the length, taking the depths from the crown, or line of same, to the ceiling on the bottom frames or floor timbers, or to the inner plating (tank top) of the double bottom in the case of a steel vessel. Measure also a breadth at each end and at the middle of the length, the said breadths to be taken at one-half their respective heights. Find the product of the length, mean breadth and mean depth, which product divide by 100 and the result shall be deemed the tonnage of the main space below the crown.

(b) *Spaces between the crown and upper deck.* Find the cubical contents of the space or spaces, if any, between the crown aforesaid and the upper deck, or line of same, which are framed in for the propelling machinery or admission of light and air thereto, by multiplying together the length, breadth and depth thereof. Divide the product by 100; add the quotient to the tonnage of the space below the crown and the result shall, subject to the provisions hereinafter contained, be deemed the tonnage of the space.

(c) *Engine room in after end.* When the propelling machinery space is located in the after end of the hold of a vessel and extends from side to side of same and has a continuous bottom line, divide its length into such an even number of parts as will give a common interval most nearly equal to that used in finding the tonnage of the hold in that part of the vessel; then proceed to find its contents by the use of areas of transverse sections taken at each end and at each point of division of its length. In other words, measure it by the same method as was used for finding the tonnage of that part of the hold in which it lies.

(d) *Shaft tunnel and thrust recess.* In the case of screw propelling vessels in which the top of the shaft tunnel is flat, the tonnage of such tunnel shall be ascertained by dividing the product of its length, breadth and depth by 100.

In like manner find the tonnage of the thrust recess or entrance to the shaft tunnel.

If the space abaft the shaft tunnel extends from side to side of the vessel, find its tonnage by using the formula for measuring peak tanks. See Figures 47 and 48 (Sec. 16.65).

(e) *Round top shaft tunnel.* When the top of the tunnel is practically semicircular in shape, find the area of a transverse section in two parts; first the lower part from the bottom of the trunk up to where the curve begins by multiplying the breadth by the applicable height, and then the semicircular part by taking half the area of a circle whose diameter equals the breadth of the tunnel. Multiply the sum of the two areas by the length and divide the product by 100. See Figure 51 (Sec. 16.65) wherein B and H equal the breadth and height respec-

tively of the lower part, and R equals the radius of the semicircular top.

(f) *Shaft space and thrust recess not cased.* When the shaft is not enclosed by a tunnel, the following rules should be observed in the case of a vessel with a single screw. The thrust-block space should be of such length and breadth as will permit of the proper care of the thrust-block and the height should not exceed 7 feet. The shaft space allowed should be of the dimensions of the usual tunnel suitable for the vessel and the height of this space should not exceed 6 feet.

When the vessel is a twin screw and the space aft of the engines is open from side to side, the space should not be included in the engine room measurement for a greater height than 6 feet mean, and any space therein appropriated for stores or for any purposes other than the propelling machinery should be subtracted from the space to be included in the engine room.

§ 16.57 Engine room in small boats.

(a) In the case of a motorboat not having an engine room bulkheaded off from the rest of the hold, allow as engine space the space occupied by the engine and sufficient space on each side and end of it—say, about 2 feet—to permit the operator to handle it safely and efficiently; if sufficient space does not exist for such allowance then allow whatever space there is. Fuel tanks are not to be included in the said engine space.

(b) If the engine room is bulkheaded off from the rest of the hold and is larger than is strictly required for safe and efficient handling of the engine, limit the engine space according to the said requirements and as indicated in (a) above.

(c) *Engine on a bed.* If the engine sets on a bed located on the vessel's bottom timbers, take depths when measuring the propelling machinery space from the under side of the deck, or line of same down to the top of the bottom frames or floor timbers as the case may be, or to the ceiling thereon when fitted.

(d) *Boxed-in engine.* When the portion of the engine extending above a cockpit platform is boxed-in such boxed-in portion is considered to be all of the space available for the installation and operation of the engine above the line of said platform in that part of the vessel.

In the case of a wholly-boxed-in engine in the hold of a motorboat, the tonnage of the boxed-in space, plus the shaft, engine auxiliaries, etc., that may be outside the boxing is considered the propelling machinery space.

The above restrictions may invalidate light and air exemption when the boxing does not extend above the line of the upper deck. However, when such boxing does extend above said deck line, the height of light and air exemption is from the upper deck line to the under side of the top of the boxing.

§ 16.58 *Deduction for propelling power.* In the case of a vessel propelled

by steam or other power, a deduction for the actual propelling machinery space shall be as follows, according to its percentage of the vessel's gross tonnage:

In screw propelled vessels:

13% or less	deduct 175% of the propelling machinery space.
Above 13% Below 20%	deduct 32% of the gross tonnage.
20% or more	deduct 32% of the gross tonnage; or, at owner's option deduct 175% of the propelling machinery space.

In paddle propelled vessels:

20% or less	deduct 150% of the propelling machinery space.
Above 20% Below 30%	deduct 37% of the gross tonnage.
30% or more	deduct 37% of the gross tonnage; or, at owner's option deduct 150% of the propelling machinery space.

§ 16.59 Light and air spaces.

(a) On a request in writing to the Director by the owner of a vessel, the tonnage of such portion of the space or spaces above the crown of the engine room and above the line of the upper deck as is framed in for the machinery, or for the admission of light and air, and not required to be included in the gross tonnage, shall, for the purpose of ascertaining the tonnage of the space occupied by the propelling machinery be added to the said machinery space; but it shall then be included in the gross tonnage. Such space or spaces must be reasonable in extent, safe, and seaworthy and cannot be used for any purpose other than the machinery or for the admission of light and air to the propelling machinery space of the vessel. To get this benefit the request must be accompanied with a description and sketch or tracing of the spaces, the measurement thereof, and the collector's certificate that such space or spaces conform to the requirements stated above.

(b) *Reasonable in extent.* In construing the words "reasonable in extent" the measurer should note that the length should not exceed the length of the propelling machinery space, and if any portion is plated over, the length of such part must be deducted from the full length and whatever the breadth of the casing may be, the breadth allowed must not exceed one-half the extreme inside midship breadth of the vessel.

(c) *Purpose for including light and air spaces.* The purpose of adding a part of the framed-in light and air spaces (above the crown of the boiler and engine room and above the upper deck) of a vessel to her machinery space below

the upper deck is to entitle the vessel to a greater deduction for propelling power, and consequently obtain a smaller net tonnage than would otherwise result. To get this benefit, it does not always require the addition of the total of such light and air spaces. In such cases only such portion need be added as hereinafter explained.

(d) *Rule for computing addible light and air space.* Below is given a simple rule for finding the amount of light and air space or spaces required to be added to the gross tonnage and also to the propelling machinery space of a mechanically propelled vessel to entitle her to 32 percent of her gross tonnage for propelling-power deduction when granted by the Director upon request of her owner or owners:

Find 13.1 per cent of the gross tonnage inclusive of excess hatchways. Find the difference between this per cent and the tonnage of the propelling machinery space below the upper deck to the hull. Increase this difference by 15 per cent of itself, which gives approximately the amount of light and air space or spaces to be added to the gross tonnage defined above, and also to the propelling machinery space below said upper deck. The gross register tonnage in such a case is the gross tonnage as defined above, plus light and air addition, less one-half of 1 per cent of said light and air addition, which one-half per cent is additional allowance for excess hatchways due to addition of light and air to gross tonnage.

Example

Gross tonnage, exclusive of light and air and hatchways.....	5,675.95
Excess of hatchways (based on the above)	67.37

Gross tonnage, inclusive of excess hatchways and exclusive of light and air.....	5,743.32
13.1 per cent of 5,743.32.....	752.37
Machinery space below the upper deck to the hull.....	680.55
Difference.....	71.82
15 per cent of difference.....	10.77
Difference plus 15 per cent of itself (amount of light and air to be added to gross tonnage and machinery space)	82.59

Gross tonnage inclusive of light and air and excess of hatchways.....	5,825.91
Additional exemption for hatchways; account of light and air addition equals one-half 1 per cent of 82.59 = 82.59/200.....	41

Gross registered tonnage.....	5,825.50
Proof: 13.1 per cent of 5,825.50..... 680.55 plus 82.59.....	763.14 763.14

(e) *Calculations to be verified and diagram of areas made.* Calculations must be verified at least twice and a diagram of half breadths for areas made. See Figures 52 and 53 (Sec. 16.65).

(b) The deductions having been made from the gross tonnage and the remainder or net tonnage having been properly marked on the main beam, the surveyor or measuring officer will certify the result to the collector on Form 1322.

(c) *Marking net tonnage and official number on vessel.* The net tonnage (omitting fractions), together with the official number, must be marked on the face of the beam under the forward side of the main hatch on seagoing vessels and on great lakes vessels, and on the face of the beam under the after side of the forward hatch of western river steamers. On river steamers whose route may also be on bays and/or sounds and which do not have a cargo hatch on the main deck, the net tonnage and official number shall be properly inscribed in a conspicuous place on one of the main deck beams located as near as possible to the middle of the vessel.

The markings should be in plain Arabic numerals not less than 3 inches high and not less than three-eighths inch deep in vessels whose main beam is wood, and plainly cut or punched on vessels whose main beam is of steel or iron.

§ 16.61 *Appendix to certificate of registry.* When a vessel of the United States carries passengers to a foreign port or ports the collector of customs will issue to each such vessel admeasured in his district a "Special Appendix to Certificate of Registry of American Passenger Vessels" (Form 1265-A), showing the tonnage of passenger spaces on a deck not a deck to the hull and exempted from inclusion in tonnage by these regulations.

The same requirement applies to vessels operating from his district not previously furnished such an appendix.

At the end of each quarter, the Collector must report to this Bureau the official number and name of every vessel in his district to which such appendix has been issued during that period.

§ 16.62 *Measurement of government vessels.* When the tonnage of Government colliers, transports, supply ships, repair ships, etc., is requested, this tonnage shall be ascertained in accordance with these rules, but the following requirement will be waived: The marking of the vessel's name and home port, official number (none required), and net tonnage; the requirements as to size and conditions of crew space, and the certifications of deducted spaces on the beam over the doorway. The plate over the door designating its use is sufficient for such certifications.

§ 16.63 *Foreign vessels.* A similar mode of measurement having been adopted by Belgium, Denmark, Estonia, Finland, France, Free City of Danzig, Germany, Great Britain, Italy, Japan, Latvia, the Netherlands, Norway, Panama, Poland, Portugal, Russia, Spain and Sweden, and the like courtesy having been extended to vessels of the United States, it is directed that merchant vessels of these countries, the registers of which indicate their gross and net tonnage under their present laws, shall be taken in the ports of the United States to be of the tonnage so expressed in their documents. Vessels of foreign countries other than the aforesaid are to

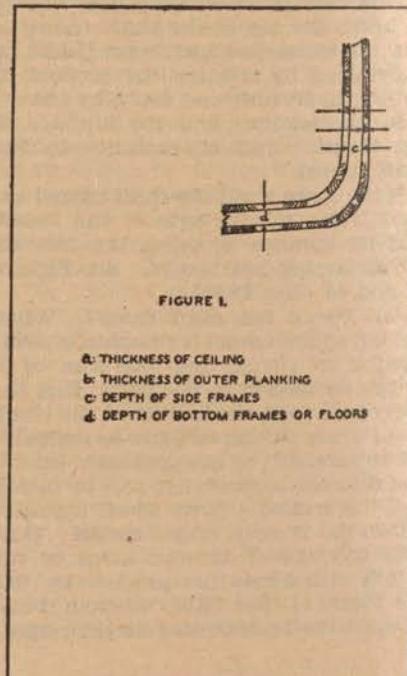
be measured according to the laws of the United States.

§ 16.64 *Change of tonnage.* The tonnage of any documented vessel of the United States expressed in her marine papers in pursuance of a measurement purporting to be in conformity to the provisions of this Part can be changed or set aside only by permission of the Director. Accordingly, when changes in structure or use of spaces that affect the tonnage of such a vessel have been made since her former admeasurement, and when for any reason the owner requests a change of tonnage, application must be made to the Director for permission to change her tonnage.

With each of such applications a precise statement of the proposed change of tonnage, whether it grows out of changes in the hull, deck erections, rig, use of spaces, deductions, etc., or errors in her former admeasurement, or changes in the regulations for the admeasurement of vessels subsequent thereto, must be submitted. This statement must be accompanied by a tonnage admeasurement for approval, with a detailed statement of the existing tonnage and appropriate blueprints or sketches for checking the proposed changes.

The figures of her former admeasurement as recorded on Form 1410 will be accepted for the unaltered spaces and used as far as they are applicable in amending the tonnage of the altered spaces unless obvious errors are found in the same. If the vessel was originally admeasured at a port other than where the admeasurement for change of tonnage is to be made, her former figures may be obtained from that port, and to which they must be returned without alteration after having served their purpose.

§ 16.65 *Figures.*



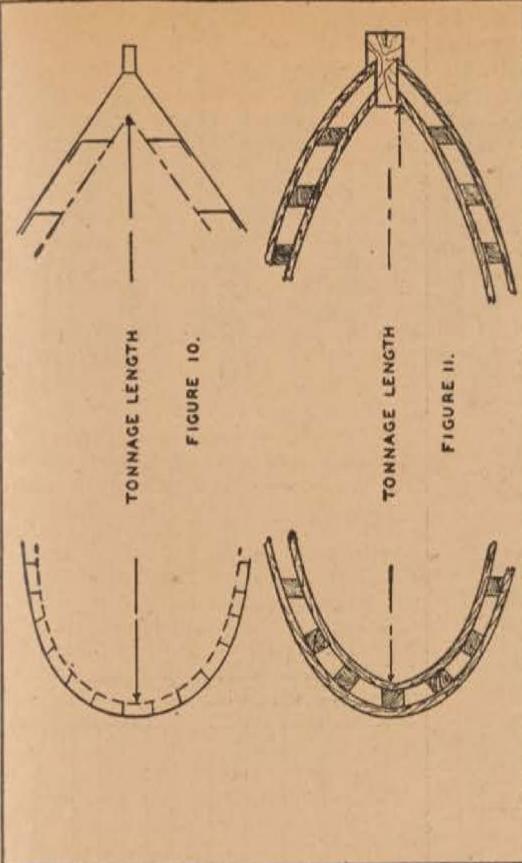
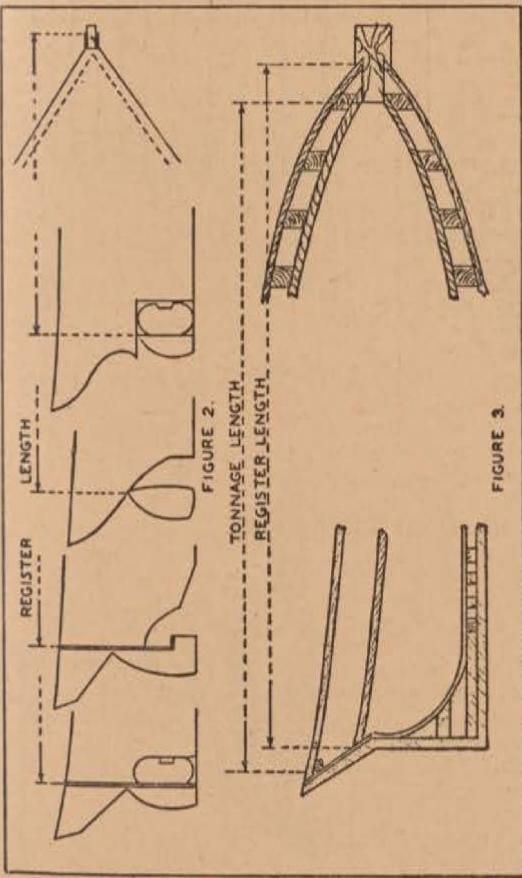


FIGURE 11.



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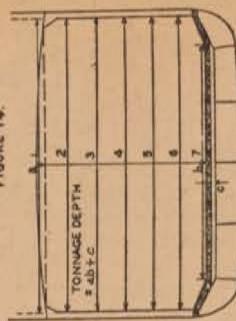
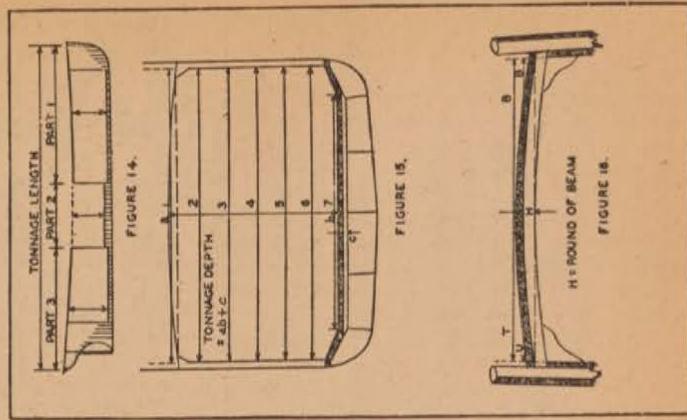


FIGURE 16.

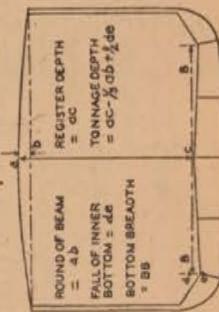
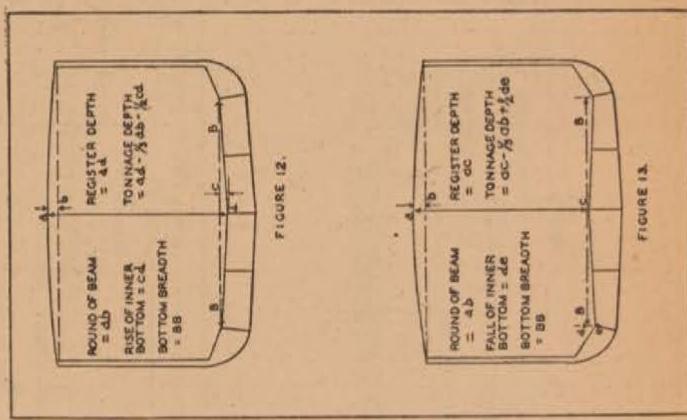
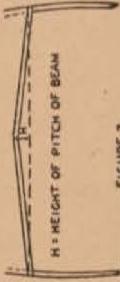
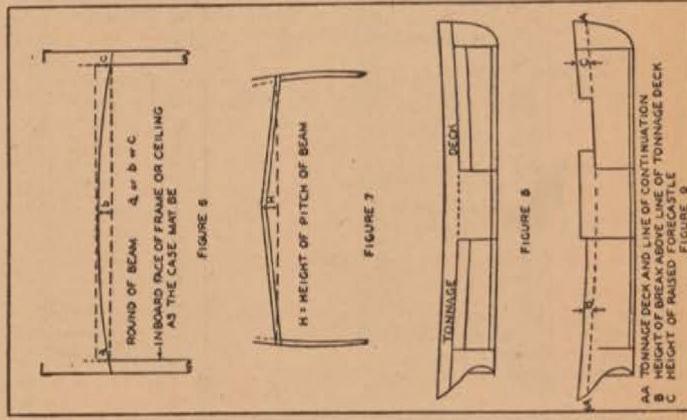


FIGURE 14.



AA = TONNAGE DECK AND LINE OF CONTINUATION
B = HEIGHT OF BREAK ABOVE LINE OF TONNAGE DECK
C = HEIGHT OF RAISED FORECASTLE
FIGURE 9

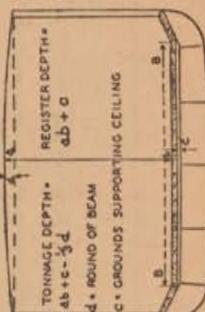
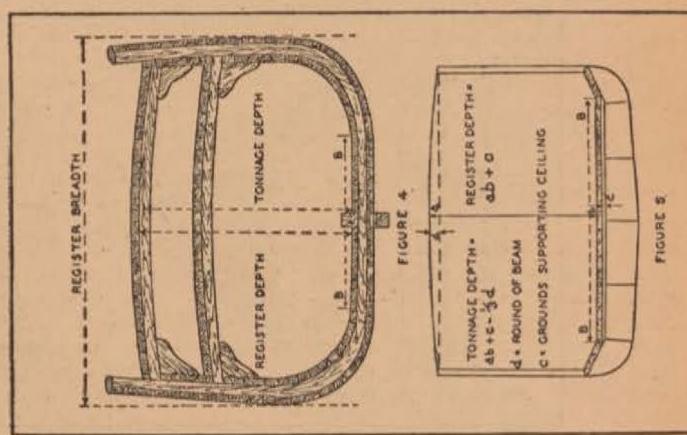


FIGURE 6.



FIGURE 26.

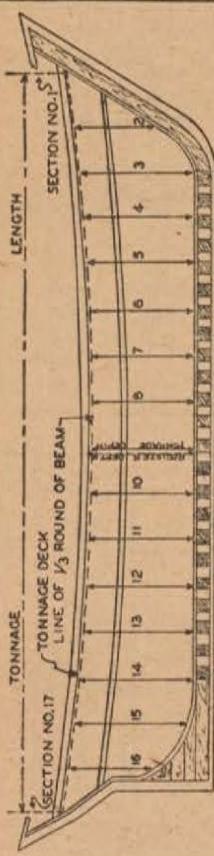


FIGURE 22.

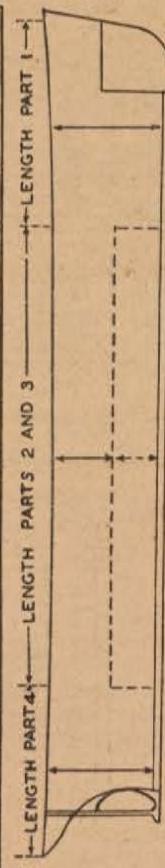


FIGURE 27.



FIGURE 23.

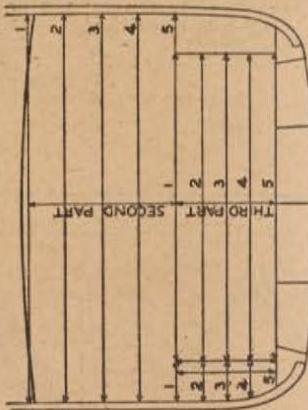


FIGURE 24.

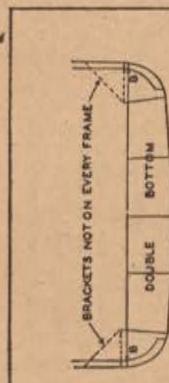


FIGURE 17.

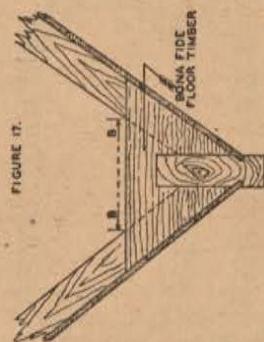


FIGURE 18.

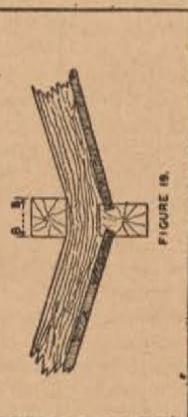


FIGURE 19.

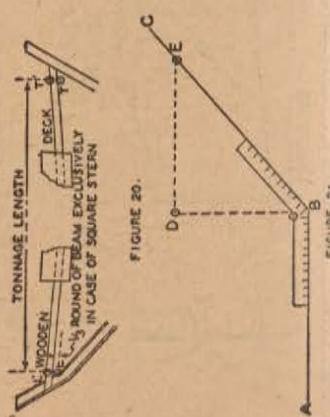


FIGURE 20.



FIGURE 26.

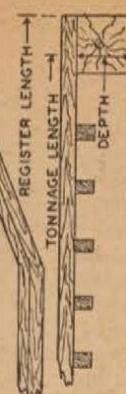


FIGURE 27.



FIGURE 28.

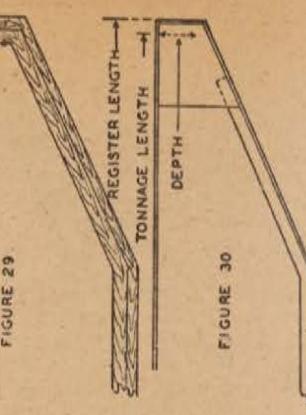


FIGURE 29.



FIGURE 30.

FIGURE 25.

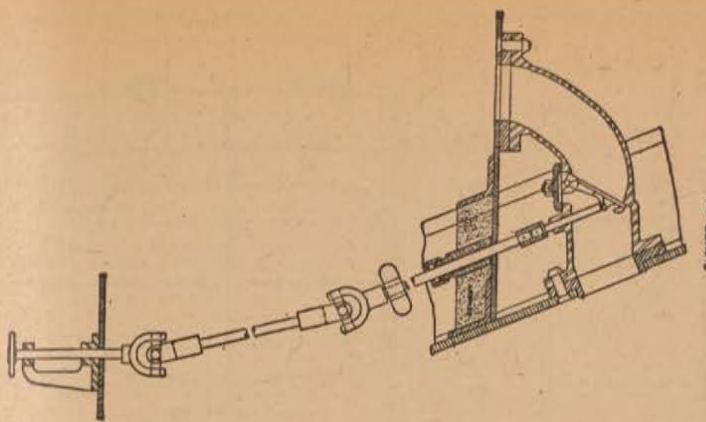


FIGURE 44.

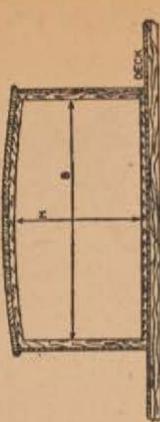


FIGURE 45.

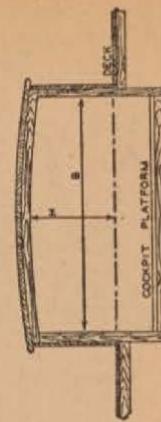


FIGURE 46.
H = HEIGHT OF OPENING
B = BREADTH OF OPENING

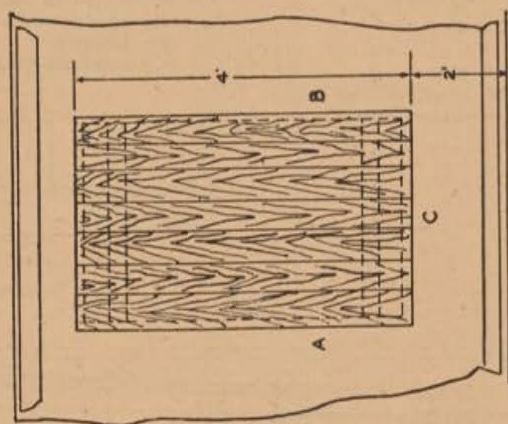


FIGURE 31.

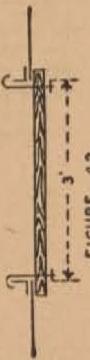


FIGURE 41.



FIGURE 42.

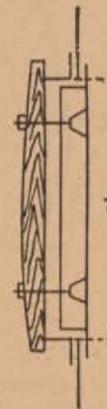


FIGURE 43.

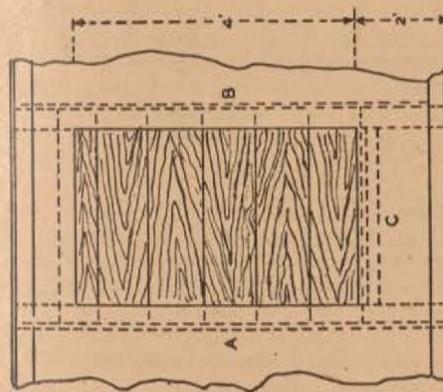


FIGURE 37.

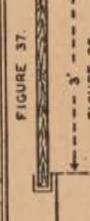


FIGURE 38.

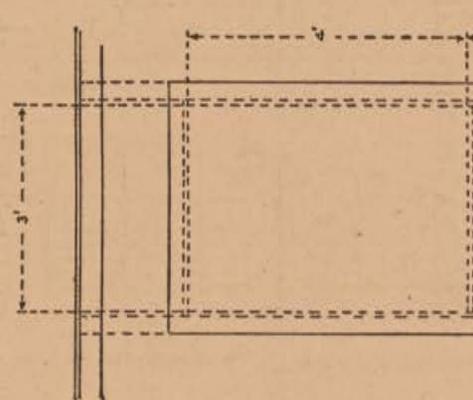


FIGURE 39.

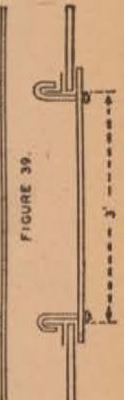


FIGURE 40.

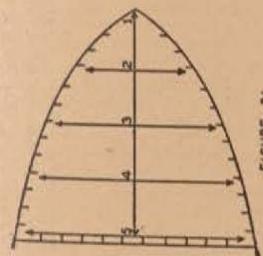


FIGURE 31.

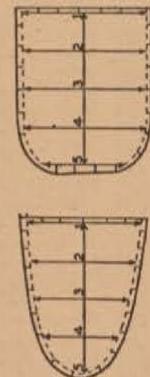


FIGURE 32.

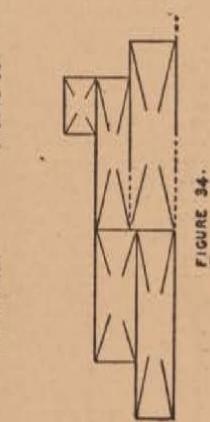


FIGURE 33.

FIGURE 34.

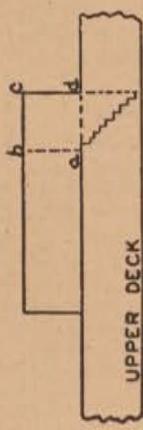


FIGURE 35.

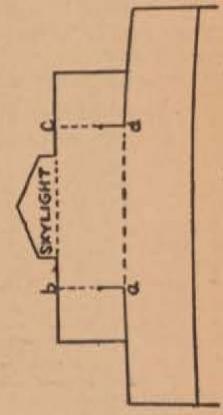


FIGURE 36.

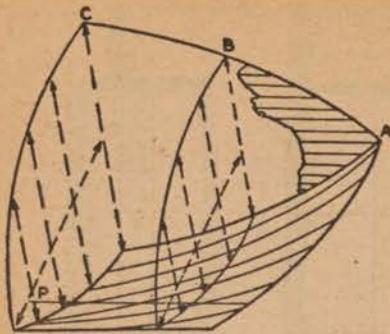


FIGURE 47.

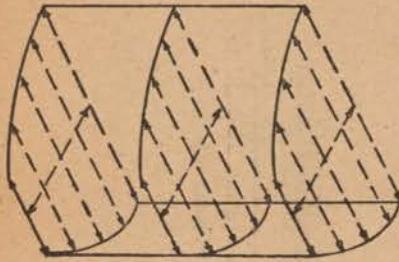


FIGURE 48.

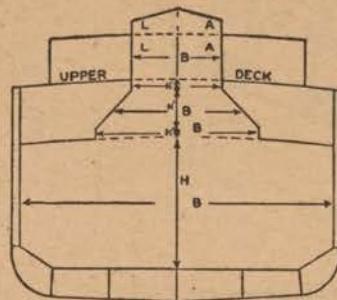


FIGURE 49.
 H = HEIGHT OF MAIN SPACE
 $H' + H'' + H'''$ = HEIGHT BETWEEN CROWN AND UPPER DECK
 L. A. = LIGHT AND AIR SPACE ABOVE UPPER DECK
 B = BREADTH

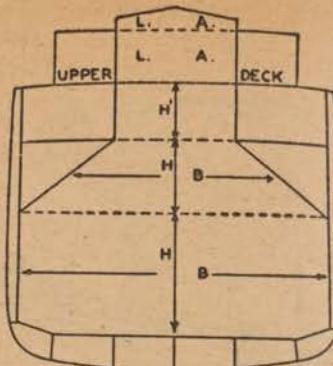


FIGURE 50.

$H + H$ = HEIGHT OF MAIN SPACE
 H' = HEIGHT TWEEN CROWN & UPPER DK.
 B = BREADTH
 L. A. = LIGHT AND AIR SPACE ABOVE UPPER DK.

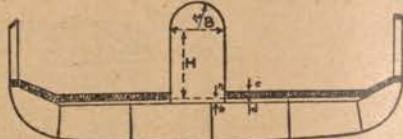


FIGURE 51.
 $ab = cd =$ THICKNESS OF CEILING

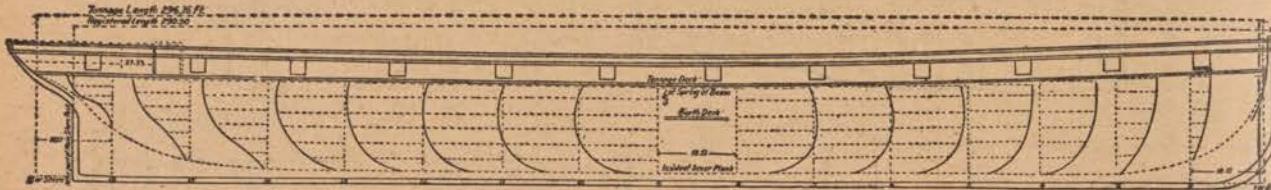


FIGURE 52.

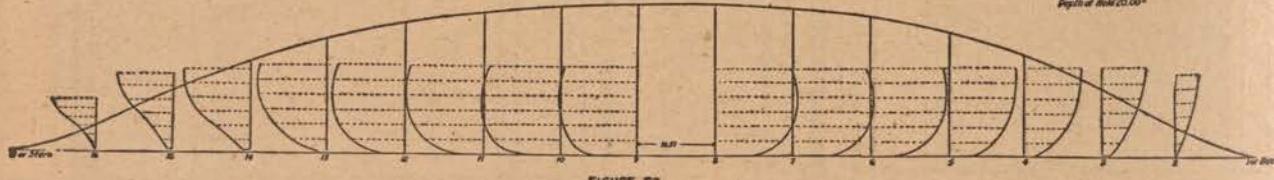


FIGURE 53.

§ 16.66 Table of decimal equivalent of inches, etc.

Tables

For finding the decimal equivalent of inches and for converting tons into cubic meters, and vice versa, the following tables will be found useful:

Decimal Equivalent of Inches

One foot, or 12 inches, the integer

Equivalents
in decimals
of a foot

11 inches	0.92
10 inches	.83
9 inches	.75
8 inches	.67
7 inches	.58
6 inches	.50
5 inches	.42
4 inches	.33
3 inches	.25
2 inches	.17
1 inch	.08
$\frac{3}{4}$ inch	.06
$\frac{1}{2}$ inch	.04
$\frac{1}{4}$ inch	.02

Reduction of Tons to Cubic Meters

Meters	Tons	Meters
2.83	23	tons
5.66	23	tons
8.49	30	tons
11.32	31	tons
14.15	32	tons
16.98	33	tons
19.81	34	tons
22.64	35	tons
25.47	36	tons
28.30	37	tons
31.13	38	tons
33.96	39	tons
36.79	40	tons
39.62	41	tons
42.45	42	tons
45.28	43	tons
48.11	44	tons
50.94	45	tons
53.77	46	tons
56.60	47	tons
59.43	48	tons
62.26	49	tons
65.09	50	tons
67.92	51	tons
70.75	52	tons
73.58	53	tons
76.41	54	tons

Reduction of Tons to Cubic Meters—Con.

Reduction of Tons to Cubic Meters—Con.

	Meters	Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths	
55 tons	155.65							
56 tons	158.48							
57 tons	161.31							
58 tons	164.14	3.25	.812	.27	8.25	2.062	.69	
59 tons	166.97	3.30	.825	.28	8.30	2.075	.69	
60 tons	169.80	3.35	.837	.28	8.35	2.087	.70	
61 tons	172.63	3.40	.850	.28	8.40	2.100	.70	
62 tons	175.46	3.45	.862	.29	8.45	2.112	.70	
63 tons	178.29	3.50	.875	.29	8.50	2.125	.71	
64 tons	181.12	3.55	.887	.30	8.55	2.137	.71	
65 tons	183.95	3.60	.900	.30	8.60	2.150	.72	
66 tons	186.78	3.65	.912	.30	8.65	2.162	.72	
67 tons	189.61	3.75	.925	.31	8.70	2.175	.73	
68 tons	192.44	3.80	.937	.31	8.75	2.187	.73	
69 tons	195.27	3.85	.950	.32	8.80	2.200	.73	
70 tons	198.10	3.90	.962	.32	8.85	2.212	.74	
71 tons	200.93	3.95	.975	.33	8.90	2.225	.74	
72 tons	203.76	4.00	.987	.33	8.95	2.237	.75	
73 tons	206.59	4.05	1.000	.33	9.00	2.250	.75	
74 tons	209.42	4.10	1.012	.34	9.05	2.262	.75	
75 tons	212.25	4.15	1.025	.34	9.10	2.275	.76	
76 tons	215.08	4.20	1.037	.35	9.15	2.287	.76	
77 tons	217.91	4.25	1.050	.35	9.20	2.300	.77	
78 tons	220.74	4.30	1.062	.35	9.25	2.312	.77	
79 tons	223.57	4.40	1.075	.36	9.30	2.325	.78	
80 tons	226.40	4.45	1.087	.36	9.35	2.337	.78	
81 tons	229.23	4.50	1.100	.37	9.40	2.350	.78	
82 tons	232.06	4.60	1.112	.37	9.45	2.362	.79	
83 tons	234.89	4.65	1.125	.37	9.50	2.375	.79	
84 tons	237.72	4.70	1.137	.38	9.55	2.387	.80	
85 tons	240.55	4.75	1.150	.38	9.60	2.400	.80	
86 tons	243.38	4.80	1.162	.39	9.65	2.412	.80	
87 tons	246.21	4.85	1.175	.39	9.70	2.425	.81	
88 tons	249.04	4.90	1.187	.40	9.75	2.437	.81	
89 tons	251.87	4.95	1.200	.40	9.80	2.450	.82	
90 tons	254.70	5.00	1.212	.40	9.85	2.462	.82	
91 tons	257.53	5.05	1.225	.42	10.00	2.475	.83	
92 tons	260.36	5.10	1.237	.42	10.05	2.500	.83	
93 tons	263.19	5.15	1.250	.43	10.10	2.512	.84	
94 tons	266.02	5.25	1.262	.43	10.15	2.525	.84	
95 tons	268.85	5.30	1.275	.43	10.20	2.537	.85	
96 tons	271.68	5.35	1.287	.44	10.25	2.550	.85	
97 tons	274.51	5.40	1.300	.44	10.30	2.562	.85	
98 tons	277.34	5.50	1.312	.45	10.35	2.575	.86	
99 tons	280.17	5.55	1.325	.45	10.40	2.587	.86	
100 tons	283.00	5.60	1.337	.45	10.45	2.600	.87	
		5.65	1.350	.45	10.50	2.612	.87	
		5.70	1.362	.46	10.55	2.625	.88	
		5.75	1.375	.46	10.60	2.637	.88	
		5.80	1.387	.46	10.65	2.650	.88	
		5.85	1.400	.47	10.70	2.662	.89	
		5.90	1.412	.47	10.75	2.675	.89	
		5.95	1.425	.48	10.80	2.687	.90	
		6.00	1.437	.48	10.85	2.700	.90	
		6.05	1.450	.49	10.90	2.712	.90	
		6.10	1.462	.49	10.95	2.725	.91	
		6.15	1.475	.50	10.95	2.737	.91	
		6.20	1.487	1.100		2.750	.92	
		6.25	1.500	.50	11.05	2.762	.92	
		6.30	1.512	.51	11.10	2.775	.93	
		6.35	1.525	.51	11.15	2.787	.93	
		6.40	1.537	.52	11.20	2.800	.93	
		6.45	1.550	.52	11.25	2.812	.94	
		6.50	1.562	.53	11.30	2.825	.94	
		6.55	1.575	.53	11.35	2.837	.95	
		6.60	1.587	.53	11.40	2.850	.95	
		6.65	1.600	.53	11.45	2.862	.95	
		6.70	1.612	.54	11.50	2.875	.96	
		6.75	1.625	.54	11.55	2.887	.96	
		6.80	1.637	.55	11.60	2.900	.97	
		6.85	1.650	.55	11.65	2.912	.97	
		6.90	1.662	.55	11.70	2.925	.98	
		6.95	1.675	.56	11.75	2.937	.98	
		7.00	1.687	.56	11.80	2.950	.98	
		7.05	1.700	.57	11.85	2.962	.99	
		7.10	1.712	.57	11.90	2.975	.99	
		7.15	1.725	.58	11.95	2.987	1.00	
		7.20	1.737	.58	11.95	2.987	1.00	
2.00	0.500	0.17	7.00	1.750	.58	12.00	3.000	1.00
2.05	.512	.17	7.05	1.762	.59	12.05	3.012	1.00
2.10	.525	.18	7.10	1.775	.59	12.10	3.025	1.01
2.15	.537	.18	7.15	1.787	.60	12.15	3.037	1.01
2.20	.550	.18	7.20	1.800	.60	12.20	3.050	1.02
2.25	.562	.19	7.25	1.812	.61	12.25	3.062	1.02
2.30	.575	.19	7.30	1.825	.61	12.30	3.075	1.03
2.35	.587	.20	7.35	1.837	.61	12.35	3.087	1.03
2.40	.600	.20	7.40	1.850	.62	12.40	3.100	1.03
2.45	.612	.20	7.45	1.862	.62	12.45	3.112	1.04
2.50	.625	.21	7.50	1.875	.63	12.50	3.125	1.04
2.55	.637	.21	7.55	1.887	.63	12.55	3.137	1.05
2.60	.650	.22	7.60	1.900	.64	12.60	3.150	1.05
2.65	.662	.22	7.65	1.912	.64	12.65	3.162	1.05
2.70	.675	.23	7.70	1.925	.64	12.70	3.175	1.06
2.75	.687	.23	7.75	1.937	.65	12.75	3.187	1.06
2.80	.700	.23	7.80	1.950	.65	12.80	3.200	1.07
2.85	.712	.24	7.85	1.962	.65	12.85	3.212	1.07
2.90	.725	.24	7.90	1.975	.66	12.90	3.225	1.08
2.95	.737	.25	7.95	1.987	.66	12.95	3.237	1.08
3.00	.750	.25	8.00	2.000	.67			
3.05	.762	.25	8.05	2.012	.67	13.00	3.250	1.08
3.10	.775	.26	8.10	2.025	.68	13.05	3.262	1.09
3.15	.787	.26	8.15	2.037	.68	13.10	3.275	1.09
3.20	.800	.27	8.20	2.050	.68	13.15	3.287	1.10

To reduce cubic meters to tons divide the number of cubic meters in question by 2.83, or multiply it by the factor 0.353.

§ 16.67 Table A of common intervals when tonnage depth is 16 feet or less.

Table A

Showing in feet the common interval and $\frac{1}{4}$ common intervals between tonnage breadths, corresponding to different tonnage depths, when the tonnage depth at the middle of the tonnage length does not exceed 16 feet.

Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths
2.00	0.500	0.17	7.00	1.750	.58
2.05	.512	.17	7.05	1.762	.59
2.10	.525	.18	7.10	1.775	.59
2.15	.537	.18	7.15	1.787	.60
2.20	.550	.18	7.20	1.800	.60
2.25	.562	.19	7.25	1.812	.60
2.30	.575	.19	7.30	1.825	.61
2.35	.587	.20	7.35	1.837	.61
2.40	.600	.20	7.40	1.850	.62
2.45	.612	.20	7.45	1.862	.62
2.50	.625	.21	7.50	1.875	.63
2.55	.637	.21	7.55	1.887	.63
2.60	.650	.22	7.60	1.900	.63
2.65	.662	.22	7.65	1.912	.64
2.70	.675	.23	7.70	1.925	.64
2.75	.687	.23	7.75	1.937	.65
2.80	.700	.23	7.80	1.950	.65
2.85	.712	.24	7.85	1.962	.65
2.90	.725	.24	7.90	1.975	.66
2.95	.737	.25	7.95	1.987	.66
3.00	.750	.25	8.00	2.000	.67
3.05	.762	.25	8.05	2.012	.67
3.10	.775	.26	8.10	2.025	.68
3.15	.787	.26	8.15	2.037	.68
3.20	.800	.27	8.20	2.050	.68

Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths
13.20	3.300	1.10	18.15	4.537	1.51	23.15	5.787	1.93
13.25	3.312	1.10	18.20	4.550	1.52	23.20	5.800	1.93
13.30	3.325	1.11	18.25	4.562	1.52	23.25	5.812	1.94
13.35	3.337	1.11	18.30	4.575	1.53	23.30	5.825	1.94
13.40	3.350	1.12	18.35	4.587	1.53	23.35	5.837	1.95
13.45	3.362	1.12	18.40	4.600	1.53	23.40	5.850	1.95
13.50	3.375	1.13	18.45	4.612	1.54	23.45	5.862	1.95
13.55	3.387	1.13	18.50	4.625	1.54	23.50	5.875	1.96
13.60	3.400	1.13	18.55	4.637	1.55	23.55	5.887	1.96
13.65	3.412	1.14	18.60	4.650	1.55	23.60	5.900	1.97
13.70	3.425	1.14	18.65	4.662	1.55	23.65	5.912	1.97
13.75	3.437	1.15	18.70	4.675	1.56	23.70	5.925	1.98
13.80	3.450	1.15	18.75	4.687	1.56	23.75	5.937	1.98
13.85	3.462	1.15	18.80	4.700	1.57	23.80	5.950	1.98
13.90	3.475	1.16	18.85	4.712	1.57	23.85	5.962	1.99
13.95	3.487	1.16	18.90	4.725	1.58	23.90	5.975	1.99
14.00	3.500	1.17	18.95	4.737	1.58	23.95	5.987	2.00
14.05	3.512	1.17	19.00	4.750	1.58	24.00	6.000	2.00
14.10	3.525	1.18	19.05	4.762	1.59	24.05	6.012	2.01
14.15	3.537	1.18	19.10	4.775	1.59	24.10	6.025	2.01
14.20	3.550	1.18	19.15	4.787	1.60	24.15	6.037	2.01
14.25	3.562	1.19	19.20	4.800	1.60	24.20	6.050	2.02
14.30	3.575	1.19	19.25	4.812	1.60	24.25	6.062	2.02
14.35	3.587	1.20	19.30	4.825	1.61	24.30	6.075	2.03
14.40	3.600	1.20	19.35	4.837	1.61	24.35	6.087	2.03
14.45	3.612	1.20	19.40	4.850	1.62	24.40	6.100	2.03
14.50	3.625	1.21	19.45	4.862	1.62	24.45	6.112	2.04
14.55	3.637	1.21	19.50	4.875	1.63	24.50	6.125	2.04
14.60	3.650	1.22	19.55	4.887	1.63	24.55	6.137	2.05
14.65	3.662	1.22	19.60	4.900	1.63	24.60	6.150	2.05
14.70	3.675	1.23	19.65	4.912	1.64	24.65	6.162	2.05
14.75	3.687	1.23	19.70	4.925	1.64	24.70	6.175	2.06
14.80	3.700	1.23	19.75	4.937	1.65	24.75	6.187	2.06
14.85	3.712	1.24	19.80	4.950	1.65	24.80	6.200	2.07
14.90	3.725	1.24	19.85	4.962	1.65	24.85	6.212	2.07
14.95	3.737	1.25	19.90	4.975	1.66	24.90	6.225	2.08
15.00	3.750	1.25	19.95	4.987	1.66	24.95	6.237	2.08
15.05	3.762	1.25	20.00	5.000	1.67	25.00	6.250	2.08
15.10	3.775	1.26	20.05	5.012	1.67	25.05	6.262	2.09
15.15	3.787	1.26	20.10	5.025	1.68	25.10	6.275	2.09
15.20	3.800	1.27	20.15	5.037	1.68	25.15	6.287	2.10
15.25	3.812	1.27	20.20	5.050	1.68	25.20	6.300	2.10
15.30	3.825	1.28	20.25	5.062	1.69	25.25	6.312	2.10
15.35	3.837	1.28	20.30	5.075	1.69	25.30	6.325	2.11
15.40	3.850	1.28	20.35	5.087	1.70	25.35	6.337	2.11
15.45	3.862	1.29	20.40	5.100	1.70	25.40	6.350	2.12
15.50	3.875	1.29	20.45	5.112	1.70	25.45	6.362	2.12
15.55	3.887	1.30	20.50	5.125	1.71	25.50	6.375	2.13
15.60	3.900	1.30	20.55	5.137	1.71	25.55	6.387	2.13
15.65	3.912	1.30	20.60	5.150	1.72	25.60	6.400	2.13
15.70	3.925	1.31	20.65	5.162	1.72	25.65	6.412	2.14
15.75	3.937	1.31	20.70	5.175	1.73	25.70	6.425	2.14
15.80	3.950	1.32	20.80	5.187	1.73	25.75	6.437	2.15
15.85	3.962	1.32	20.85	5.200	1.73	25.80	6.450	2.15
15.90	3.975	1.33	20.90	5.212	1.74	25.85	6.462	2.15
15.95	3.987	1.33	20.95	5.225	1.74	25.90	6.475	2.16
16.00	4.000	1.33	21.00	5.237	1.75	25.95	6.487	2.16
16.05	4.012	1.34	21.05	5.250	1.75			
16.10	4.025	1.34	21.10	5.262	1.75			
16.15	4.037	1.35	21.15	5.275	1.76			
16.20	4.050	1.35	21.20	5.287	1.76			
16.25	4.062	1.35	21.25	5.300	1.77			
16.30	4.075	1.36	21.30	5.312	1.77			
16.35	4.087	1.36	21.35	5.325	1.78			
16.40	4.100	1.37	21.40	5.337	1.78			
16.45	4.112	1.37	21.45	5.350	1.78			
16.50	4.125	1.38	21.50	5.362	1.79			
16.55	4.137	1.38	21.55	5.375	1.79			
16.60	4.150	1.38	21.60	5.387	1.80			
16.65	4.162	1.39	21.65	5.400	1.80			
16.70	4.175	1.39	21.70	5.412	1.80			
16.75	4.187	1.40	21.75	5.425	1.81			
16.80	4.200	1.40	21.80	5.437	1.81			
16.85	4.212	1.40	21.85	5.450	1.82			
16.90	4.225	1.41	21.90	5.462	1.82			
16.95	4.237	1.41	21.95	5.475	1.83			
17.00	4.250	1.42	22.00	5.487	1.83			
17.05	4.262	1.42	22.05	5.500	1.83			
17.10	4.275	1.43	22.10	5.512	1.84			
17.15	4.287	1.43	22.15	5.525	1.84			
17.20	4.300	1.43	22.20	5.537	1.85			
17.25	4.312	1.44	22.25	5.550	1.85	14.00	2.333	0.73
17.30	4.325	1.44	22.30	5.562	1.85	14.05	2.341	.73
17.35	4.337	1.45	22.35	5.575	1.86	14.10	2.350	.78
17.40	4.350	1.45	22.40	5.587	1.86	14.15	2.358	.79
17.45	4.362	1.45	22.45	5.600	1.87	14.20	2.366	.79
17.50	4.375	1.46	22.50	5.612	1.87	14.25	2.375	.79
17.55	4.387	1.46	22.55	5.625	1.88	14.30	2.383	.79
17.60	4.400	1.47	22.60	5.637	1.88	14.35	2.391	.80
17.65	4.412	1.47	22.65	5.650	1.88	14.40	2.400	.80
17.70	4.425	1.48	22.70	5.662	1.89	14.45	2.408	.80
17.75	4.437	1.48	22.75	5.675	1.89	14.50	2.416	.81
17.80	4.450	1.48	22.80	5.687	1.90	14.55	2.425	.81
17.85	4.462	1.49	22.85	5.700	1.90	14.60	2.433	.81
17.90	4.475	1.49	22.90	5.712	1.90	14.65	2.441	.81
17.95	4.487	1.50	22.95	5.725	1.91	14.70	2.450	.82
18.00	4.500	1.50	23.00	5.737	1.91	14.75	2.458	.82
18.05	4.512	1.50	23.05	5.750	1.92	14.85	2.466	.82
18.10	4.525	1.51	23.10	5.762	1.92	14.90	2.475	.83
				5.775	1.93	14.95	2.483	.83
							2.491	.83

Table B

Showing in feet the common interval and $\frac{1}{2}$ common interval between tonnage breadths, corresponding to different tonnage depths, when the tonnage depth at the middle of the tonnage length exceeds 16 feet.

§ 16.68 Table B of common intervals when tonnage depth exceeds 16 feet.

Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{4}$ common interval between breadths
15.00	2.500	.83	20.00	3.333	1.11	25.00	4.166	1.39
15.05	2.508	.84	20.05	3.341	1.11	25.05	4.175	1.39
15.10	2.516	.84	20.10	3.350	1.12	25.10	4.183	1.39
15.15	2.525	.84	20.15	3.358	1.12	25.15	4.191	1.40
15.20	2.533	.84	20.20	3.366	1.12	25.20	4.200	1.40
15.25	2.541	.85	20.25	3.375	1.13	25.25	4.208	1.40
15.30	2.550	.85	20.30	3.383	1.13	25.30	4.216	1.41
15.35	2.558	.85	20.35	3.391	1.13	25.35	4.225	1.41
15.40	2.566	.86	20.40	3.400	1.13	25.40	4.233	1.41
15.45	2.575	.86	20.45	3.408	1.14	25.45	4.241	1.41
15.50	2.583	.86	20.50	3.416	1.14	25.50	4.250	1.42
15.55	2.591	.86	20.55	3.425	1.14	25.55	4.258	1.42
15.60	2.600	.87	20.60	3.433	1.14	25.60	4.266	1.42
15.65	2.608	.87	20.65	3.441	1.15	25.65	4.275	1.43
15.70	2.616	.87	20.70	3.450	1.15	25.70	4.283	1.43
15.75	2.625	.88	20.75	3.458	1.15	25.75	4.291	1.43
15.80	2.633	.88	20.80	3.466	1.16	25.80	4.300	1.43
15.85	2.641	.88	20.85	3.475	1.16	25.85	4.308	1.44
15.90	2.650	.88	20.90	3.483	1.16	25.90	4.316	1.44
15.95	2.658	.89	20.95	3.491	1.16	25.95	4.325	1.44
16.00	2.666	.89	21.00	3.500	1.17	26.00	4.333	1.44
16.05	2.675	.89	21.05	3.508	1.17	26.05	4.341	1.45
16.10	2.683	.89	21.10	3.516	1.17	26.10	4.350	1.45
16.15	2.691	.90	21.15	3.525	1.18	26.15	4.358	1.45
16.20	2.700	.90	21.20	3.533	1.18	26.20	4.366	1.46
16.25	2.708	.90	21.25	3.541	1.18	26.25	4.375	1.46
16.30	2.716	.91	21.30	3.550	1.18	26.30	4.383	1.46
16.35	2.725	.91	21.35	3.558	1.19	26.35	4.391	1.46
16.40	2.733	.91	21.40	3.566	1.19	26.40	4.400	1.47
16.45	2.741	.91	21.45	3.575	1.19	26.45	4.408	1.47
16.50	2.750	.92	21.50	3.583	1.19	26.50	4.416	1.47
16.55	2.758	.92	21.55	3.591	1.20	26.55	4.425	1.48
16.60	2.766	.92	21.60	3.600	1.20	26.60	4.433	1.48
16.65	2.775	.93	21.65	3.608	1.20	26.65	4.441	1.48
16.70	2.783	.93	21.70	3.616	1.21	26.70	4.450	1.48
16.75	2.791	.93	21.75	3.625	1.21	26.75	4.458	1.49
16.80	2.800	.93	21.80	3.633	1.21	26.80	4.466	1.49
16.85	2.808	.94	21.85	3.641	1.21	26.85	4.475	1.49
16.90	2.816	.94	21.90	3.650	1.22	26.90	4.483	1.49
16.95	2.825	.94	21.95	3.658	1.22	26.95	4.491	1.50
17.00	2.833	.94	22.00	3.666	1.22	27.00	4.500	1.50
17.05	2.841	.95	22.05	3.675	1.23	27.05	4.508	1.50
17.10	2.850	.95	22.10	3.683	1.23	27.10	4.516	1.51
17.15	2.858	.95	22.15	3.691	1.23	27.15	4.525	1.51
17.20	2.866	.96	22.20	3.700	1.23	27.20	4.533	1.51
17.25	2.875	.96	22.25	3.708	1.24	27.25	4.541	1.51
17.30	2.883	.96	22.30	3.716	1.24	27.30	4.550	1.52
17.35	2.891	.96	22.35	3.725	1.24	27.35	4.558	1.52
17.40	2.900	.97	22.40	3.733	1.24	27.40	4.566	1.52
17.45	2.908	.97	22.45	3.741	1.25	27.45	4.575	1.53
17.50	2.916	.97	22.50	3.750	1.25	27.50	4.583	1.53
17.55	2.925	.98	22.55	3.758	1.26	27.55	4.591	1.53
17.60	2.933	.98	22.60	3.766	1.26	27.60	4.600	1.53
17.65	2.941	.98	22.65	3.775	1.26	27.65	4.608	1.54
17.70	2.950	.98	22.70	3.783	1.26	27.70	4.616	1.54
17.75	2.958	.99	22.75	3.791	1.26	27.75	4.625	1.54
17.80	2.966	.99	22.80	3.800	1.27	27.80	4.633	1.54
17.85	2.975	.99	22.85	3.808	1.27	27.85	4.641	1.55
17.90	2.983	.99	22.90	3.816	1.27	27.90	4.650	1.55
17.95	2.991	1.00	22.95	3.825	1.28	27.95	4.658	1.55
18.00	3.000	1.00	23.00	3.833	1.28	28.00	4.666	1.56
18.05	3.008	1.00	23.05	3.841	1.28	28.05	4.675	1.56
18.10	3.016	1.01	23.10	3.850	1.28	28.10	4.683	1.56
18.15	3.025	1.01	23.15	3.858	1.29	28.15	4.691	1.56
18.20	3.033	1.01	23.20	3.866	1.29	28.20	4.700	1.57
18.25	3.041	1.01	23.25	3.875	1.29	28.25	4.708	1.57
18.30	3.050	1.02	23.30	3.883	1.29	28.30	4.716	1.57
18.35	3.058	1.02	23.35	3.891	1.30	28.35	4.725	1.58
18.40	3.066	1.02	23.40	3.900	1.30	28.40	4.733	1.58
18.45	3.075	1.03	23.45	3.908	1.31	28.45	4.741	1.58
18.50	3.083	1.03	23.50	3.916	1.31	28.50	4.750	1.58
18.55	3.091	1.03	23.55	3.925	1.31	28.55	4.758	1.59
18.60	3.100	1.03	23.60	3.933	1.31	28.60	4.766	1.59
18.65	3.108	1.04	23.65	3.941	1.31	28.65	4.775	1.59
18.70	3.116	1.04	23.70	3.950	1.32	28.70	4.783	1.59
18.75	3.125	1.04	23.75	3.958	1.32	28.75	4.791	1.60
18.80	3.133	1.04	23.80	3.966	1.32	28.80	4.800	1.60
18.85	3.141	1.05	23.85	3.975	1.33	28.85	4.808	1.60
18.90	3.150	1.05	23.90	3.983	1.33	28.90	4.816	1.61
18.95	3.158	1.05	23.95	3.991	1.33	28.95	4.825	1.61
19.00	3.166	1.06	24.00	4.000	1.33	29.00	4.833	1.61
19.05	3.175	1.06	24.05	4.008	1.34	29.05	4.841	1.61
19.10	3.183	1.06	24.10	4.016	1.34	29.10	4.850	1.62
19.15	3.191	1.06	24.15	4.025	1.34	29.15	4.858	1.62
19.20	3.200	1.07	24.20	4.033	1.34	29.20	4.866	1.62
19.25	3.208	1.07	24.25	4.041	1.35	29.25	4.875	1.63
19.30	3.216	1.07	24.30	4.050	1.35	29.30	4.883	1.63
19.35	3.225	1.08	24.35	4.058	1.35	29.35	4.891	1.63
19.40	3.233	1.08	24.40	4.066	1.36	29.40	4.900	1.63
19.45	3.241	1.08	24.45	4.075	1.36	29.45	4.908	1.64
19.50	3.250	1.08	24.50	4.083	1.36	29.50	4.916	1.64
19.55	3.258	1.09	24.55	4.091	1.36	29.55	4.925	1.64
19.60	3.266	1.09	24.60	4.100	1.37	29.60	4.933	1.64
19.65	3.275	1.09	24.65	4.108	1.37	29.65	4.941	1.65
19.70	3.283	1.09	24.70	4.116	1.37	29.70	4.950	1.65
19.75	3.291	1.10	24.75	4.125	1.38	29.75	4.958	1.65
19.80	3.300	1.10	24.80	4.133	1.38	29.80	4.966	1.66
19.85	3.308	1.10	24.85	4.141	1.38	29.85	4.975	1.66
19.90	3.316	1.11	24.90	4.150	1.38	29.90	4.983	1.66
19.95	3.323	1.11	24.95	4.158	1.39	29.95		

Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths	Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths
29.95	4.991	1.66	34.90	5.816	1.94	39.85	6.641	2.21
	5.000	1.67	34.95	5.825	1.94	39.90	6.650	2.22
30.05	5.008	1.67	35.00	5.833	1.94	39.95	6.658	2.22
30.10	5.016	1.67	35.05	5.841	1.95	40.00	6.666	2.22
30.15	5.025	1.68	35.10	5.850	1.95	40.05	6.675	2.23
30.20	5.033	1.68	35.15	5.858	1.95	40.10	6.683	2.23
30.25	5.041	1.68	35.20	5.866	1.95	40.15	6.691	2.23
30.30	5.050	1.68	35.25	5.875	1.96	40.20	6.700	2.23
30.35	5.058	1.69	35.30	5.883	1.96	40.25	6.708	2.24
30.40	5.066	1.69	35.35	5.891	1.96	40.30	6.716	2.24
30.45	5.075	1.69	35.40	5.900	1.97	40.35	6.725	2.24
30.50	5.083	1.69	35.45	5.908	1.97	40.40	6.733	2.24
30.55	5.091	1.70	35.50	5.916	1.97	40.45	6.741	2.25
30.60	5.100	1.70	35.55	5.925	1.98	40.50	6.750	2.25
30.65	5.108	1.70	35.60	5.933	1.98	40.55	6.758	2.25
30.70	5.116	1.71	35.65	5.941	1.98	40.60	6.766	2.26
30.75	5.125	1.71	35.70	5.950	1.98	40.65	6.775	2.26
30.80	5.133	1.71	35.75	5.958	1.99	40.70	6.783	2.26
30.85	5.141	1.71	35.80	5.966	1.99	40.75	6.791	2.26
30.90	5.150	1.72	35.85	5.975	1.99	40.80	6.800	2.27
30.95	5.158	1.72	35.90	5.983	1.99	40.85	6.808	2.27
			35.95	5.991	2.00	40.90	6.816	2.27
31.00	5.166	1.72				40.95	6.825	2.28
31.05	5.175	1.73	36.00	6.000	2.00	41.00	6.833	2.28
31.10	5.183	1.73	36.05	6.008	2.00	41.05	6.841	2.28
31.15	5.191	1.73	36.10	6.016	2.01	41.05		
31.20	5.200	1.73	36.15	6.025	2.01	41.10	6.850	2.28
31.25	5.208	1.74	36.20	6.033	2.01	41.15	6.858	2.29
31.30	5.216	1.74	36.25	6.041	2.01	41.20	6.866	2.29
31.35	5.225	1.74	36.30	6.050	2.02	41.25	6.875	2.29
31.40	5.233	1.74	36.35	6.058	2.02	41.30	6.883	2.29
31.45	5.241	1.75	36.40	6.066	2.02	41.35	6.891	2.30
31.50	5.250	1.75	36.45	6.075	2.03	41.40	6.900	2.30
31.55	5.258	1.75	36.50	6.083	2.03	41.45	6.908	2.30
31.60	5.266	1.76	36.55	6.091	2.03	41.50	6.916	2.31
31.65	5.275	1.76	36.60	6.100	2.03	41.55	6.925	2.31
31.70	5.283	1.76	36.65	6.108	2.04	41.60	6.933	2.31
31.75	5.291	1.76	36.70	6.116	2.04	41.65	6.941	2.31
31.80	5.300	1.77	36.75	6.125	2.04	41.70	6.950	2.32
31.85	5.308	1.77	36.80	6.133	2.04	41.75	6.958	2.32
31.90	5.316	1.77	36.85	6.141	2.05	41.80	6.966	2.32
31.95	5.325	1.78	36.90	6.150	2.05	41.85	6.975	2.33
			36.95	6.158	2.05	41.90	6.983	2.33
32.00	5.333	1.78				41.95	6.991	2.33
32.05	5.341	1.78	37.00	6.166	2.06			
32.10	5.350	1.78	37.05	6.175	2.06	42.00	7.000	2.33
32.15	5.358	1.79	37.10	6.183	2.06	42.05	7.008	2.34
32.20	5.366	1.79	37.15	6.191	2.06	42.10	7.016	2.34
32.25	5.375	1.79	37.20	6.200	2.07	42.15	7.025	2.34
32.30	5.383	1.79	37.25	6.208	2.07	42.20	7.033	2.34
32.35	5.391	1.80	37.30	6.216	2.07	42.25	7.041	2.35
32.40	5.400	1.80	37.35	6.225	2.08	42.30	7.050	2.35
32.45	5.408	1.80	37.40	6.233	2.08	42.35	7.058	2.35
32.50	5.416	1.81	37.45	6.241	2.08	42.40	7.066	2.36
32.55	5.425	1.81	37.50	6.250	2.08	42.45	7.075	2.36
32.60	5.433	1.81	37.55	6.258	2.09	42.50	7.083	2.36
32.65	5.441	1.81	37.60	6.266	2.09	42.55	7.091	2.36
32.70	5.450	1.82	37.65	6.275	2.09	42.60	7.100	2.37
32.75	5.458	1.82	37.70	6.283	2.09	42.65	7.108	2.37
32.80	5.466	1.82	37.75	6.291	2.10	42.70	7.116	2.37
32.85	5.475	1.83	37.80	6.300	2.10	42.75	7.125	2.38
32.90	5.483	1.83	37.85	6.308	2.10	42.80	7.133	2.38
32.95	5.491	1.83	37.90	6.316	2.11	42.85	7.141	2.38
			37.95	6.325	2.11	42.90	7.150	2.38
33.00	5.500	1.83				42.95	7.158	2.39
33.05	5.508	1.84	38.00	6.333	2.11			
33.10	5.516	1.84	38.05	6.341	2.11	43.00	7.166	2.39
33.15	5.525	1.84	38.10	6.350	2.12	43.05	7.175	2.39
33.20	5.533	1.84	38.15	6.358	2.12	43.10	7.183	2.39
33.25	5.541	1.85	38.20	6.366	2.12	43.15	7.191	2.40
33.30	5.550	1.85	38.25	6.375	2.13	43.20	7.200	2.40
33.35	5.558	1.85	38.30	6.383	2.13	43.25	7.208	2.40
33.40	5.566	1.86	38.35	6.391	2.13	43.30	7.216	2.41
33.45	5.575	1.86	38.40	6.400	2.13	43.35	7.225	2.41
33.50	5.583	1.86	38.45	6.408	2.14	43.40	7.233	2.41
33.55	5.591	1.86	38.50	6.416	2.14	43.45	7.241	2.41
33.60	5.600	1.87	38.55	6.425	2.14	43.50	7.250	2.42
33.65	5.608	1.87	38.60	6.433	2.14	43.55	7.258	2.42
33.70	5.616	1.87	38.65	6.441	2.15	43.60	7.266	2.42
33.75	5.625	1.88	38.70	6.450	2.15	43.65	7.275	2.43
33.80	5.633	1.88	38.75	6.458	2.15	43.70	7.283	2.43
33.85	5.641	1.88	38.80	6.466	2.16	43.75	7.291	2.43
33.90	5.650	1.88	38.85	6.475	2.16	43.80	7.300	2.43
33.95	5.658	1.89	38.90	6.483	2.16	43.85	7.308	2.44
			38.95	6.491	2.16	43.90	7.316	2.44
34.00	5.666	1.89				43.95	7.325	2.44
34.05	5.675	1.89	39.00	6.500	2.17			
34.10	5.683	1.89	39.05	6.508	2.17	44.00	7.333	2.44
34.15	5.691	1.90	39.10	6.516	2.17	44.05	7.341	2.45
34.20	5.700	1.90	39.15	6.525	2.18	44.10	7.350	2.45
34.25	5.708	1.90	39.20	6.533	2.18	44.15	7.358	2.45
34.30	5.716	1.91	39.25	6.541	2.18	44.20	7.366	2.46
34.35	5.725	1.91	39.30	6.550	2.18	44.25	7.375	2.46
34.40	5.733	1.91	39.35	6.558	2.19	44.30	7.383	2.46
34.45	5.741	1.91	39.40	6.566	2.19	44.35	7.391	2.46
34.50	5.750	1.92	39.45	6.575	2.19	44.40	7.400	2.47
34.55	5.758	1.92	39.50	6.583	2.19	44.45	7.408	2.47
34.60	5.766	1.92	39.55	6.591	2.20	44.50	7.416	2.47
34.65	5.775	1.93	39.60	6.600	2.20	44.55	7.425	2.48
34.70	5.783	1.93	39.65	6.608	2.20	44.60	7.433	2.48
34.75	5.791	1.93	39.70	6.616	2.21	44.65	7.441	2.48
34.80	5.800	1.93	39.75	6.625	2.21	44.70	7.450	2.48
34.85	5.808	1.94	39.80	6.633	2.21	44.75	7.458	2.49

Tonnage depth	Common interval between breadths	$\frac{1}{2}$ common interval between breadths
44.80	7.466	2.49
44.85	7.475	2.49
44.90	7.483	2.49
44.95	7.491	2.50
45.00	7.500	2.50
45.05	7.508	2.51
45.10	7.516	2.51
45.15	7.525	2.51
45.20	7.533	2.51
45.25	7.541	2.51
45.30	7.550	2.52
45.35	7.558	2.52
45.40	7.566	2.52
45.45	7.575	2.53
45.50	7.583	2.53
45.55	7.591	2.53
45.60	7.600	2.53
45.65	7.608	2.54
45.70	7.616	2.54
45.75	7.625	2.54
45.80	7.633	2.54
45.85	7.641	2.55
45.90	7.650	2.55
45.95	7.658	2.55

§ 16.69 Definitions of enclosures on or above upper deck:

Break. A break is the space above the line of the under side of the upper deck when that deck is cut off and continued at a higher elevation. The height of a break is the distance from the said line to the under side of the break deck.

Bridge. A decked erection usually from 6 to 6 feet in height and of undefined length, fitted about amidships and extending from side to side over the upper deck of a vessel.

Chart house. A house, room or space designated for the purpose of navigation in connection with the stowage and use of charts and navigating instruments necessary to the plotting of the course of the vessel.

Deck house. (formerly called round-house). An erection on or above the upper deck but not extending from side to side of the vessel, as is the case with a bridge, a forecastle, a poop, or raised quarter-deck. For descriptive purposes on vessel documents, spaces not extending from side to side of the vessel, such as cabin trunks, and closed-in spaces over the holds of motorboats, etc., may be classed as deck houses.

Excess hatchways. The difference between one-half of 1 per cent of the gross tonnage exclusive of hatchways and the aggregate tonnage of the hatchways.

Forecastle. A structure on and located at the extreme forward end of the upper deck and having its sides completely enclosed by a continuation upward of the vessel's outer skin.

Light and air spaces. The portion of the spaces within the casings around the boiler and engine hatches and above the upper deck to the hull of a vessel when used for admission of light and air to the boilers or machinery below.

Poop. A structure on and located at the extreme after end of the upper deck and having its sides completely enclosed by a continuation upward of the vessel's outer skin.

Radio house or space. A structure or space in which the radio apparatus is installed and which may or may not provide accommodations for the operator or operators when off duty.

Side house. A small house at the side of the upper, forecastle, bridge, or poop deck, etc., of a vessel.

Superstructure. Any superstructure the breadth of which, (at all points throughout its length), is approximately equivalent to the breadth of the upper deck, and the side frames of which are entirely independent of the main frames of the vessel. This definition is not applicable to forecastle, bridge or poop.

§ 16.70 Definitions of items of deductions:

Anchor gear. The space below deck occupied by chains or cables, machinery, etc., for handling the anchor.

Boatswain's stores. The spaces for

storing paints, oils, blocks, hawsers, rigging, deck gear, etc., in charge of the boatswain and for daily use on the vessels.

Chart house. (See foregoing definition.)

Crew spaces. The space appropriated exclusively to the use of the crew of a vessel, except such spaces as the engineer's workshop, carpenter shop, plumber shop, butcher shop, etc., wherever situated. The total of all crew-space deductions will be shown on vessel's documents under the head of "crew space."

Master's cabin. A space for the exclusive use of the master, consisting of sleeping room, bathroom, dressing room, office, and passageways serving his accommodations.

Radio house. (See foregoing definition.)

Steering gear. The space below deck occupied by machinery, fittings, etc., for operating the steering gear.

Storage of sails. The space in a vessel propelled wholly by sails used exclusively for storing the same, subject to the limitation of $2\frac{1}{2}$ per cent of the vessel's gross tonnage.

§ 16.71 Definitions of structural terms, etc.:

After perpendicular. A vertical straight line at the after edge of the rudder post.

Athwart—athwartship. In a transverse direction; from side to side at right angles to the fore and aft center line of a vessel.

Batten. A board several inches in breadth, usually fitted on the side frames in holds and between decks of vessels instead of ceiling.

Beam. An athwart member supporting a portion of a deck. Also the breadth of the vessel.

Between decks. For measurement purposes it is the space between the second and third and third and fourth decks, etc., the decks being numbered from below.

Body plan. A drawing consisting of a pair of half transverse elevations or end views of a vessel, both having a common

vertical middle line, so that the right hand side represents the vessel as seen from ahead and the left hand side as seen from astern. On the body plan appear the forms of the various cross sections. The curvature of the rail and deck lines at the sides, and with the water-lines, buttock lines, and diagonal lines indicated as straight lines.

Booby hatch. A small companion fitted with a sliding top.

Break in double bottom. The point where the line of the inner bottom is broken by being either raised or lowered from the normal line of same.

Bulwark. A term applied to the strake of shell plating or the side planking above the weather deck and usually extends between the forecastle and the bridge or the bridge and the poop.

Ceiling. The covering of wood planking on the inboard face of a vessel's side frames, bottom frames, floor timbers, and sometimes on the under side of deck beams.

Cellular double bottom. A term applied when the double bottom is divided into numerous compartments by the floors and longitudinals.

Coaming. The vertical boundary around a hatch, skylight, etc., the "sill" below a tonnage opening in a bulkhead.

Cockpit. A space at the bottom of which is a platform sunk below the line of the upper deck on small craft.

Companion. A small structure sheltering a deck opening affording entrance to a companionway.

Companionway. A stairway or ladderway leading to a space above or below.

Covering board. A plank or a strake of planking fitted horizontally on top of frame heads at the line of weather deck.

Crown. A term sometimes used to denote the round up or camber of a deck.

Deck hook. A wooden hook or knee on the level of deck beams on which the extreme forward ends of deck planks rest and to which they are fastened. On iron or steel vessels, a plate connecting the extreme ends of deck stringer plates.

Depth of frame. The depth of a bottom frame is its perpendicular height. See D Figure 1. The depth of a side frame is the athwart distance between its inboard and outboard face.

Double bottom. Compartments at bottom of ship between inner and outer bottom plating, used for ballast tanks, water, fuel oil, etc.

Fidley hatch. Hatch around smokestack and uptake.

Flange. Portion of a plate or shape at, or nearly at right angles to main portion.

Flare. A spreading outward and upward.

Floor or floor timber. The lowermost piece of timber connecting the main frames, notched to fit over the keel or keelson and extending the full depth of the frames to which it is fastened. In an iron or steel vessel a plate placed vertically in the bottom, extending from

Bilge to bilge. In way of each frame, to which it (the frame) is connected. In double bottoms of the usual construction it extends from the outer to the inner bottom thereof.

Frame. One of the numerous transverse (longitudinal in Isherwood-type vessels) "ribs" that form the framing of a vessel.

Frame bracket. A plate connecting a side frame to the margin plate.

Freeing port. An opening in the bulkhead or shell plating between the shelter and upper decks for discharging large quantities of water which may be shipped.

General arrangement plans. Plans showing the various quarters, spaces and compartments into which a vessel is usually divided.

Gudgeon. Fittings on the sternpost to take the rudder pintles.

Gunwale. A term applied to the line where an upper deck stringer intersects the shell.

Hatchway. An aperture in a vessel's deck through which cargo is laden or discharged; in common practice the term "hatch" is also applied.

Hold. For admeasurement purposes, that portion of the vessel below the tonnage deck.

Horn timber. The center line frame in the stern of a wooden vessel, extending aft from the sternpost.

Inboard profile. Drawing of a vessel cut vertically through its longitudinal center line, showing its forward and after perpendiculars, line of deck at center and side, height of decks, tanks, height of bottom frames or floors and their spacing, assignment of various spaces, machinery, etc.

Inner bottom. Plating forming the upper boundary of the double bottom. Also called the tank top.

Keel. In wooden and composite vessels it is composed of pieces of timber and extends from stem to sternpost and is the bottom member of the vessel's structure. In iron or steel vessels it consists of long bars fitted vertically or of plates fitted horizontally at the middle line.

Keelson. In wooden vessels the keelson is composed (like the keel) of various pieces of timber placed on the bottom frames directly over and in line with the keel and extending all fore and aft. In iron or steel vessels the middle-line keelson is the keelson at the center line, directly over the keel.

Length between perpendiculars. The length of a vessel measured from the forward edge of the stem where it intersects the load water line to the after perpendicular.

Length over all. The length of a vessel measured from the foremost part of the stem to the aftermost point of the stern.

Limber strake. The fore and aft plank of bottom ceiling laid next to the keelson.

Longitudinal framing. A system of construction in which, in conjunction

with deep web frames, the main frames are run fore and aft instead of athwartships.

Longitudinal. A fore and aft vertical member running parallel, or nearly parallel, to the center vertical keel through the double bottom.

Main rail. Rail fitted on the upper edge of bulwark plating, or upon the stanchions surrounding an upper deck.

Margin plate. The outer boundary of the inner bottom, connecting it to the shell plating at the bilge.

Midship cross section. A drawing of a vessel cut athwartship at about mid-length, showing moulded depth, moulded breadth, round or pitch of beam, depth of side and bottom frames, floors, etc.

Oriol deck. The lowest partial deck.

Outboard. Away from the center line, towards the side of the vessel.

Pintle. Fitting or pin on the rudder which turns in a gudgeon.

Planking. A term applied to wood decks and to the outside planking of wood or composite vessels.

Plating. The plates of the shell, decks, bulkheads, etc.

Quadrant. A casting, forging or built-up frame in the shape of a sector of a circle attached to the rudder stock and through which the steering gear leads turn the rudder.

Rabbet. A groove or channel cut in a piece of timber to take the edge of a plank, or the ends of a number of planks.

Rake of the bow. The inclination of the line of the stem from the forward perpendicular.

Rake of the stern timber. Its (stern timber) inclination from the after perpendicular.

Reverse frame. An angle bar or other shape riveted to the top of floors and/or the inner edge of a transverse frame to reinforce it.

Rudder post. See sternpost.

Rudder stock. The main piece of the rudder frame, to which the pintles are connected and to the upper end of which the quadrant or tiller is fitted.

Samson post. A heavy vertical post that supports cargo booms.

Scantlings. Dimensions of various members that are used in the construction of a vessel.

Scupper. A round or oval aperture usually fitted in decks for the purpose of drainage.

Settling tanks. Oil tanks used for separating entrained water from the oil. The oil is allowed to stand for a time, to permit the water to settle at the bottom when it is drained or pumped off.

Shaft tunnel. Enclosed alley-way around propeller shaft.

Shelf. A fore and aft timber fitted to the frames and forming a support for the ends of the deck beams.

Shell plating. The plates forming the outer skin of the hull.

Sheer. The amount by which the height of the weather deck at the for-

ward and after perpendiculars exceeds this height at the mid-perpendicular.

Skin. A term usually applied to the outside planking or plating.

Skylight. A built-up frame of wood or metal having glass lights fitted in the top and installed over a deck opening for the purpose of furnishing light and air to the spaces below.

Stem. In the case of wooden vessels, it is the heavy piece of timber at which the outside planking terminates at the forward end of the hull. In iron or steel vessels it is the heavy piece of iron or steel extending from the keel to above the uppermost weather deck, and forming the extreme fore end of a vessel.

Stern. The after end of a vessel.

Sternpost (main). In wooden vessels, the piece of timber extending from the after end of the keel to the uppermost deck and to which the rudder braces are fixed to receive the pintles by which the rudder is hung. In iron or steel sailing vessels, paddle and twin-screw steamers, the heavy forging or casting of iron or steel extending from the after end of the keel (to which it is scarfed) to an appropriate distance within the hull; in single screw steamers, the after part of the stern frame.

Stiffener. An angle bar, T-bar, channel bar, etc., used to stiffen plating of the bulkhead, etc.

Strake. A fore and aft continuous course or row of shell or other plating or planking.

Tank top. Plating forming the top of a double bottom. The inner bottom.

Transom. A floor plate extending across the vessel at the forward side of the sternpost and attached thereto.

Transverse framing. Athwartship and vertical members forming the vessel's framing. Opposite to the longitudinal system of framing.

Tumble home. An inboard sloping of the vessel's side. (The opposite to flare.)

Web frame. Members built of plates and angles, spaced at required intervals, and fitted in lieu of main frames for the purpose of local strengthening.

Wheelhouse (or pilot house). The house in which a steering wheel is located for the steering and navigation of the vessel.

§ 16.72 Suez and Panama Canal certificates. Suez Canal special tonnage certificates and Panama Canal tonnage certificates, if required, will be furnished any merchant vessel or U. S. naval vessel upon application to the Collector of Customs.

(Sec. 4, 28 Stat. 743 as amended, 46 U.S.C. 79; Secs. 2 and 3, 23 Stat. 118 and 119, 46 U.S.C. 2 and 3)

[SEAL]

R. S. FIELD,
Director.

Approved, October 24, 1939.

J. M. JOHNSON,
Acting Secretary of Commerce.

[F. R. Doc. 39-3947; Filed, October 25, 1939;
12:41 p. m.]

**TITLE 49—TRANSPORTATION AND
RAILROADS**
**INTERSTATE COMMERCE COM-
MISSION**
**FORM OF FINANCIAL STATEMENTS OF
TRANSFeree**

At a Session of the Interstate Commerce Commission, Division 5, held at its office in Washington, D. C., on the 2nd day of October, A. D. 1939.

The matter of financial statements of transferee (purchaser, grantee, or lessee) required under paragraph VI of Forms BMC-41 or BMC-42¹ being under consideration, and good cause appearing:

It is ordered. That transferee shall submit financial statements under Paragraph VI of Forms BMC-41 or BMC-42 containing the following information:

Income Statements for Transferee

	Year ending December 31, 19...	Period end- ing 19... (latest current date)
Revenue from motor carrier operations.	-----	-----
Other income (describe):	-----	-----
Less:	-----	-----
Operation and maintenance:	-----	-----
Expenses	-----	-----
Depreciation	-----	-----
Taxes	-----	-----
Other expenses (describe):	-----	-----
(Net income)	-----	-----

Balance Sheets for Transferee

	As of ¹ De- cember 31, 19...	As of ¹ ... 19... (latest current date)
Assets:		
Cash on hand and in bank and buildings	-----	-----
Trucks (value as of balance sheet dates)	-----	-----
Tractors	-----	-----
Trailers	-----	-----
Busses	-----	-----
Automobiles	-----	-----
Investments (stocks, bonds, and other securities)	-----	-----
Other assets (describe):	-----	-----
Total	-----	-----
Liabilities:		
Mortgages on land and buildings	-----	-----
Balance owed on vehicles	-----	-----
Other liabilities (describe):	-----	-----
Total	-----	-----

¹ Required where transferee is a motor carrier.

² Required in all cases.

And it is further ordered. That this order shall become effective on the 1st day of November, A. D. 1939.

By the Commission, division 5.

[SEAL]

W. P. BARTEL,
Secretary.

[F. R. Doc. 39-3963; Filed, October 27, 1939;
10:08 a. m.]

³ F.R. 2179, 2180 DI.

Notices

DEPARTMENT OF LABOR.

Wage and Hour Division.

IN THE MATTER OF APPLICATION FOR EXEMPTION OF THAT PORTION OF THE CANE SUGAR PROCESSING AND MILLING BRANCH OF THE CANE SUGAR INDUSTRY WHICH IS LOCATED IN LOUISIANA FROM THE MAXIMUM HOURS PROVISIONS OF THE FAIR LABOR STANDARDS ACT OF 1938.

Whereas the South Coast Corporation has filed application for the exemption of that portion of the cane sugar processing and milling branch of the cane sugar industry which is located in Louisiana from the maximum hours provisions of the Fair Labor Standards Act of 1938, as a branch of an industry of a seasonal nature within the meaning of Section 7 (b) (3) and Part 526 of the Regulations issued thereunder, and

Whereas Harry L. Laws and Company, Inc. and the Celotex Corporation have filed applications for the exemption of that portion of the cane sugar processing and milling branch of the cane sugar industry which is located in Louisiana, as is engaged in the removing, conveying, burning, baling, piling and storing of bagasse from the maximum hours provisions of the Fair Labor Standards Act of 1938, as a branch of an industry of a seasonal nature within the meaning of Section 7 (b) (3) and Part 526 of the Regulations issued thereunder, and

Whereas it appears from the said applications that:

1. Sugarcane matures and is and must be harvested in Louisiana in order to avoid severe frosts or freezes during the regularly recurring season, October through early January, and

2. Such sugarcane enters into sugar mills located in Louisiana for processing and is processed during the regularly recurring season, October through early January, running nearly concurrently with, but lagging somewhat after, the harvest, and

3. The mills wherein the processing operations are performed do not engage in any other operations and close at the end of the operating season each year except for maintenance, repair, clerical and sales work, and

4. Sugarcane, being the material used by the sugar mills, is available, for natural reasons, only during the regularly recurring season, October through early January,

Now, therefore, upon consideration of the facts stated in the said applications, the Administrator hereby determines, pursuant to Section 526.5 (c), that a *prima facie* case has been shown for the granting of an exemption pursuant to Section 7 (b) (3) of the Fair Labor Standards Act of 1938 and Part 526 of the Regulations issued thereunder to that portion of the cane sugar processing and

milling branch of the cane sugar industry which is located in Louisiana.

In the above:

The term "that portion of the cane sugar processing and milling branch of the cane sugar industry which is located in Louisiana" includes that branch of the industry engaged in the unloading of sugarcane from wagons and railroad cars onto conveyors; the processing of sugarcane into sugar, syrup and molasses, but not the refining of such sugar, syrup and molasses; the removal, handling and conveying of raw sugar, syrup and molasses to storage and placing them in storage on or in the vicinity of the sugar mill site; the removal, conveying, burning, baling, and piling and storing in baled form on or in the vicinity of the sugar mill site of bagasse resulting from the processing of sugarcane into raw sugar, syrup or molasses; and the operations or services necessary or incident to the foregoing.

In accordance with the procedure established by Section 526.5 (c) of the Regulations, the Administrator, for fifteen days following the publication of this determination, will receive objection to the granting of the exemption and request for hearing from any interested person. Upon receipt of objection and request for hearing, the Administrator will set the application for hearing before himself or an authorized representative.

If no objection and request for hearing is received within fifteen days, the Administrator will make a finding upon the *prima facie* case shown upon the applications.

These applications may be examined at Room 313, 939 D Street, N.W., Washington, D. C.

Signed at Washington, D. C., this 26th day of October, 1939.

HAROLD D. JACOBS,
Acting Administrator.

[F. R. Doc. 39-3963; Filed, October 26, 1939;
1:05 p. m.]

NOTICE OF ISSUANCE OF A SPECIAL CERTIFICATE FOR THE EMPLOYMENT OF LEARNERS IN THE APPAREL INDUSTRY

Notice is hereby given that a Special Certificate for the employment of learners in the Apparel Industry at hourly wages lower than the minimum wage applicable under Section 6 of the Fair Labor Standards Act of 1938 is issued ex parte under Section 14 of the said Act, Section 522.5 (d) of Regulations Part 522, as amended, to the employer listed below effective October 28, 1939, until October 24, 1940, subject to the following terms: OCCUPATIONS, WAGE RATES, AND CONDITIONS

The employment of learners in the Apparel Industry under this Certificate is limited to the following occupations, learning periods, and minimum wage rates:

(1) A learner is a person who has had less than eight weeks experience in the

past three years upon a stitching operation in the Apparel Industry.

(2) The employment of learners under this Certificate is limited to the operation of stitching machines and for eight (8) weeks for any one learner. During this period, learners shall be paid at least 22½¢ per hour. If experienced workers are paid on a piece rate basis, the same piece rates shall be paid to the learners employed on similar work and they shall receive earnings on such piece rates if in excess of 22½¢ per hour, but in no case less than 22½¢ per hour.

(3) This Special Certificate is issued on representations by the employer that experienced stitching machine operators are not available.

(4) This Special Certificate shall be canceled as of the date of its issue if found that experienced workers were available when the Certificate was issued, and shall be canceled prospectively or as of the date of violation if found that any of its terms have been violated or that skilled workers have become available.

(5) Under this Special Certificate, no learner shall be employed at a sub-minimum wage until and unless the Certificate is posted and kept posted in a conspicuous place in the plant in which learners are employed.

NUMBER OF LEARNERS

Not in excess of 5% of the total number of stitching machine operators employed in the plant may be employed under this Certificate.

NAME AND ADDRESS OF FIRM

Knoxville Glove Company, 815 McGhee Avenue, Knoxville, Tennessee.

Signed at Washington, D. C., this 27th day of October 1939.

MERLE D. VINCENT,
Chief, Hearings and
Exemptions Section.

[F. R. Doc. 39-3984; Filed, October 27, 1939;
12:33 p. m.]

CIVIL AERONAUTICS AUTHORITY.

[Docket No. 264]

IN THE MATTER OF CERTAIN CONTRACTS AND OTHER TRANSACTIONS BETWEEN MARQUETTE AIRLINES, INC., AND AMERICAN AIRLINES, INC.

NOTICE OF POSTPONEMENT OF HEARING

Public hearing in the above-entitled proceeding, being an investigation instituted by orders of the Authority dated June 27, 1939 and October 18, 1939, (1) to determine whether or not any contracts, agreements, and transactions by and between Marquette Airlines, Inc., and American Airlines, Inc., are adverse to the public interest, are in violation of any provisions of said Act, or constitute acts prohibited by any of the provisions of said Act; (2) to determine whether or not any of the foregoing matters re-

quire any further action by the Authority pursuant to the provisions of said Act; and (3) to determine whether or not there exist any relations between, or common control of, Marquette Airlines, Inc. and American Airlines, Inc., directly, or indirectly through third persons, in violation of any of the provisions of said Act, now assigned for October 30, 1939, is hereby postponed to November 6, 1939, 10 o'clock a. m. (Central Standard Time) at the Coronado Hotel, St. Louis, Missouri, before Examiner Frank A. Law, Jr.

Dated Washington, D. C., October 25, 1939.

[SEAL] FRANK A. LAW, JR.
Examiner.

[F. R. Doc. 39-3970; Filed, October 27, 1939;
10:39 a. m.]

FEDERAL TRADE COMMISSION.

United States of America—Before
Federal Trade Commission

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 25th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

[Docket No. 3796]

IN THE MATTER OF LOUIS G. MEYERS, AN INDIVIDUAL, DOING BUSINESS AS NATIONAL PEN COMPANY AND PHOENIX SALES COMPANY

ORDER APPOINTING EXAMINER AND FIXING TIME AND PLACE FOR TAKING TESTIMONY

This matter being at issue and ready for the taking of testimony, and pursuant to authority vested in the Federal Trade Commission, under an Act of Congress (38 Stat. 717; 15 U.S.C.A., Section 41),

It is ordered, That Lewis C. Russell, an examiner of this Commission, be and he hereby is designated and appointed to take testimony and receive evidence in this proceeding and to perform all other duties authorized by law;

It is further ordered, That the taking of testimony in this proceeding begin on Wednesday, November 8, 1939, at ten o'clock in the forenoon of that day (eastern standard time) in Room 500, 45 Broadway, New York City, New York.

Upon completion of testimony for the Federal Trade Commission, the examiner is directed to proceed immediately to take testimony and evidence on behalf of the respondent. The examiner will then close the case and make his report upon the evidence.

By the Commission:

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3965; Filed, October 27, 1939;
9:19 a. m.]

*4 FR. 4377 DI.

United States of America—Before Federal Trade Commission

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 25th day of October, A. D. 1939.

Commissioners: Robert E. Freer, Chairman; Garland S. Ferguson, Charles H. March, Ewin L. Davis, William A. Ayres.

[Docket No. 3822]

IN THE MATTER OF AMERICAN HAIR AND FELT COMPANY, A CORPORATION, AND CLINTON CARPET COMPANY, A CORPORATION.

ORDER APPOINTING EXAMINER AND FIXING TIME AND PLACE FOR TAKING TESTIMONY

This matter being at issue and ready for the taking of testimony, and pursuant to authority vested in the Federal Trade Commission, under an Act of Congress (38 Stat. 717, 15 U.S.C.A., Section 41),

It is ordered, That Lewis C. Russell, an examiner of this Commission, be and he hereby is designated and appointed to take testimony and receive evidence in this proceeding and to perform all other duties authorized by law;

It is further ordered, That the taking of testimony in this proceeding begin on Monday, November 13, 1939, at ten o'clock in the forenoon of that day (central standard time) in Room 1123, New Post Office Building, 433 West Van Buren Street, Chicago, Illinois.

Upon completion of testimony for the Federal Trade Commission, the examiner is directed to proceed immediately to take testimony and evidence on behalf of the respondent. The examiner will then close the case and make his report upon the evidence.

By the Commission:

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 39-3966; Filed, October 27, 1939;
9:19 a. m.]

SECURITIES AND EXCHANGE COMMISSION.

United States of America—Before the Securities and Exchange Commission

At a regular session of the Securities and Exchange Commission, held at its office in the City of Washington, D. C., on the 26th day of October, A. D. 1939.

[File No. 8-1]

IN THE MATTER OF FRANKLYN J. V. STOWITTS

ORDER DENYING REGISTRATION

Franklyn J. V. Stowitts, hereinafter called the applicant, having filed with the Commission on April 5, 1939, an application for registration on Form 3-M; and registration having been postponed pending final determination as to whether registration should be denied or postponed; and

The Commission, on May 4, 1939, having instituted proceedings on the question of denial and/or postponement of registration pursuant to Section 15 (b) of the Securities Exchange Act of 1934, as amended; and the said matter, after appropriate notice, having come on for hearing; and the Commission having duly considered the matter; and the Commission finding that denial of said registration is in the public interest and that applicant has wilfully violated Sections 5 (a) (1), 5 (a) (2), and 17 (a) (2) of the Securities Act of 1933, as amended, all as more fully set forth in the Findings and Opinion of the Commission this day issued; and the Commission being duly advised in the premises;

It is ordered. Pursuant to Section 15 (b) of the Securities Exchange Act of 1934, as amended, that the application of Franklyn J. V. Stowitts, as broker or dealer transacting business on over-the-counter markets be and the same is hereby denied.

By the Commission.

[SEAL] FRANCIS P. BRASSOR,
Secretary.

[F. R. Doc. 39-3973; Filed, October 27, 1939;
11:01 a. m.]

*United States of America—Before the
Securities and Exchange Commission*

At a regular session of the Securities and Exchange Commission held at its office in the City of Washington, D. C., on the 27th day of October, A. D. 1939.

[File No. 32-159]

IN THE MATTER OF BRADFORD ELECTRIC
COMPANY

NOTICE OF AND ORDER FOR HEARING

An application pursuant to section 6 (b) of the Public Utility Holding Company Act of 1935, having been duly filed with this Commission by the above-named party;

It is ordered. That a hearing on such matter be held on November 13, 1939, at 10:00 o'clock in the forenoon of that day, at the Securities and Exchange Building, 1778 Pennsylvania Avenue, NW, Washington, D. C. On such day the hearing-room clerk in room 1102 will advise as to the room where such hearing will be held. At such hearing, if in respect of any declaration, cause shall be shown why such declaration shall become effective.

It is further ordered. That Charles S. Moore or any other officer or officers of the Commission designated by it for that purpose shall preside at the hearings in such matter. The officer so designated to preside at any such hearing is hereby authorized to exercise all powers granted to the Commission under section 18 (c) of said Act and to a trial examiner under

the Commission's Rules of Practice to continue or postpone said hearing from time to time.

Notice of such hearing is hereby given to such declarant or applicant and to any other person whose participation in such proceeding may be in the public interest or for the protection of investors or consumers. It is requested that any person desiring to be heard or to be admitted as a party to such proceeding shall file a notice to that effect with the Commission on or before November 8, 1939.

The matter concerned herewith is in regard to an application by the Bradford Electric Company, a subsidiary of a registered holding company, pursuant to Section 6 (b) of the Public Utility Holding Company Act of 1935, for an exemption from the provisions of Section 6 (a) of the issue and private sale of a promissory note. It is proposed by the applicant that the note be in the principal amount of \$550,000.00, bear interest at 4% per annum payable on March 1 and September 1 of each year, and mature on September 1, 1949. It is stated that the note is to be sold to the Equitable Life Assurance Society of the United States, that not more than \$380,000.00 of the proceeds is to be used for the payment in full of a promissory note of the Company, dated June 29, 1939, maturing May 29, 1940, bearing interest at the rate of 3% per annum and payable to the Chase National Bank of the City of New York, and that not less than \$162,340.00 of the proceeds is to be used for additions and improvements to the physical property of the Company prior to December 31, 1940. It is stated that the issue and sale of the note was authorized by the Pennsylvania Public Utility Commission on October 23, 1939.

By the Commission.

[SEAL] FRANCIS P. BRASSOR,
Secretary.

[F. R. Doc. 39-3983; Filed, October 27, 1939;
2:30 p. m.]

*United States of America—Before the
Securities and Exchange Commission*

At a regular session of the Securities and Exchange Commission held at its office in the City of Washington, D. C., on the 27 day of October, A. D. 1939.

[File No. 46-182]

IN THE MATTER OF VIRGINIA PUBLIC SERVICE COMPANY, VIRGINIA PUBLIC SERVICE GENERATING COMPANY

NOTICE OF AND ORDER FOR HEARING

Applications pursuant to sections 6 (b) and 10 (a) (1) of the Public Utility Holding Company Act of 1935, having been duly filed with this Commission by the above-named parties;

It is ordered That a hearing on such matter be held on November 14, 1939, at 10 o'clock in the forenoon of that day, at the Securities and Exchange Building, 1778 Pennsylvania Avenue NW, Washington, D. C. On such day the hearing-room clerk in room 1102 will advise as to the room where such hearing will be held. At such hearing, if in respect of any declaration, cause shall be shown why such declaration shall become effective.

It is further ordered That Willis E. Monty or any other officer or officers of the Commission designated by it for that purpose shall preside at the hearings in such matter. The officer so designated to preside at any such hearing is hereby authorized to exercise all powers granted to the Commission under section 18 (c) of said Act and to a trial examiner under the Commission's Rules of Practice to continue or postpone said hearing from time to time.

Notice of such hearing is hereby given to such declarant or applicant and to any other person whose participation in such proceeding may be in the public interest or for the protection of investors or consumers. It is requested that any person desiring to be heard or to be admitted as a party to such proceeding shall file a notice to that effect with the Commission on or before November 9, 1939.

The matter concerned herewith is in regard to the issue and sale by Virginia Public Service Generating Company, a newly organized company, of First Mortgage 4% Sinking Fund Bonds in the principal amount of \$1,400,000, Serial Bank Note bearing 4% interest in the total face amount of \$300,000 and 3,300 shares of \$100 par value common stock. It is proposed that the sale of said securities be as follows:

(a) The First Mortgage Bonds are to be sold to Northwestern Mutual Life Insurance Company at par and accrued interest;

(b) The \$300,000 principal amount of Serial Bank Notes 4% will be sold to Harris Trust and Savings Bank, Chicago, Ill., at par; and

(d) The 3,300 shares of common stock will be sold to Virginia Public Service Company.

Virginia Public Service Company, a subsidiary of a registered holding company, seeks the approval of this Commission of the acquisition by it of the 3,300 shares of common stock (the sole stock issue) of Virginia Public Service Generating Company for the total purchase price of \$330,000.

By the Commission.

[SEAL] FRANCIS P. BRASSOR,
Secretary.

[F. R. Doc. 39-3982; Filed, October 27, 1939;
12:30 p. m.]

